MAN'S MOST DANGEROUS MYTH: The Fallacy of Race

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By M. F. ASHLEY MONTAGU

with a foreword by

ALDOUS HUXLEY

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To BERN DIBNER

Ethnic facts, though they constitute the main problem in the early stages of history, gradually lose momentum in proportion to the progress of civilization.
—Ernest Renan

On the reality or unreality of this principle, which dominates at the present hour the secret or avowed aspirations of the peoples, depends the whole of their future. Peace among peoples and the crown of such a peace—that is, the vast solidarity of mankind, the dream of the future—can in any case only triumph when founded on the conviction of the organic and mental equality of peoples and races.—Jean Finot

FOREWORD

BY ALDOUS HUXLEY

DR. ASHLEY MONTAGU's book possesses two great merits rarely found in current discussions of human problems. Where most writers over-simplify, he insists on the principle of multiple and interlocking causation. And where most assume that "facts will speak for themselves," he makes it clear that facts are mere ventriloquists' dummies, and can be made to justify any course of action that appeals to the socially conditioned passions of the individuals concerned.

These two truths are sufficiently obvious; but they are seldom recognized, for the good reason that they are very depressing. To recognize the first truth is to recognize the fact that there are no panaceas and that therefore most of the golden promises made by political reformers and revolutionaries are illusory. And to recognize the truth that facts do not speak for themselves, but only as man's socially conditioned passions dictate, is to recognize that our current educational processes can do very little to ameliorate the state of the world. In the language of traditional theology (so much more realistic, in many respects, than the "liberal" philosophies which replaced it), most ignorance is voluntary and depends upon acts of the conscious or subconscious will. Thus, the fallacies underlying the propaganda of racial hatred are not recognized because, as Dr. Montagu points out, most people have a desire to act aggressively, and the members of other ethnic groups are convenient victims, whom one may attack with a good conscience. This desire to act aggressively has its origins in the largely unavoidable frustrations imposed upon the individual by the processes of early education and later adjustments to the social environment.

Dr. Montagu might have added that aggressiveness pays a higher dividend in emotional satisfaction than does coöpera-

tion. Coöperation may produce a mild emotional glow; but the indulgence of aggressivness can be the equivalent of a drinking bout or sexual orgy. In our industrial societies, the goodness of life is measured in terms of the number and intensity of the excitements experienced. (Popular philosophy is moulded by, and finds expression in, the advertising pages of popular magazines. Significantly enough, the word that occurs more frequently in those pages than any other is "thrill.") Like sex and alcohol, aggressiveness can give enormous thrills. Under existing social conditions, it is therefore easy to represent aggressiveness as good.

Concerning the remedies for the social diseases he has so penetratingly diagnosed, Dr. Montagu says very little, except that they will have to consist in some process of education. But what process? It is to be hoped that he will answer this question at length in another work.

PREFACE
TO THE FIRST EDITION

IN OUR TIME the problem of *race* has assumed an alarmingly exaggerated importance. Alarming, because racial dogmas have been made the basis for an inhumanly brutal political philosophy which has already resulted in the death or social disfranchisement of millions of innocent individuals; exaggerated, because when the nature of contemporary "race" theory is scientifically analyzed and understood it ceases to be of any significance for social or any other kind of action. It has been well said that there is no domain where the sciences, philosophy, and politics blend to so great an extent and in their contact have so much importance to the man of the present day and of the future as in modern "race" theory. Few problems in our time more pressingly require solution than this. It is highly desirable, therefore, that the facts about "race," as science has come to know them, should be widely disseminated and clearly understood. To this end the present volume has been written.

This book is not, however, a textbook or a treatise on "race." It purports to be an examination of a contemporary aspect of "race" theory, and seeks only to clarify the reader's thinking upon an important subject about which clear thinking is generally avoided. It would be quite beyond the powers of a single person to say all that there is to be said upon the subject. As Aldous Huxley has put it, "The problem of race is as much a problem for historians and psychologists as for geneticists. Anything like a definite and authoritative solution of it must be coöperative. Also, to carry conviction, it should be official and international. The race theory claims to be scientific. It is, surely then, the business of science, as organized in the universities and learned societies of the civilized world, to investigate this claim."

It is as a contribution towards such an end from a scientist, who is a student both of human culture and human biology, that the present volume is offered.

It may appear to some that I have been a little hard on the physical anthropologists. I can only plead that as a physical anthropologist myself I believe it is high time that the traditional conception of "race" held by my professional brethren be dealt with frankly. Friends can afford to be frank, let enemies be cautious.

Much of the material presented in this volume has appeared separately in the form of articles published under the following titles and in the following journals: "The Problem of Race," the New York *Times*, 13 August 1939 (reprinted in the *Teaching Biologist*, IX [1939], 25–26); "Race and Kindred Delusions," *Equality*, I (1939), 20–24; "Should We Ignore Racial Differences?" *Town Meeting*, (1939), pp. 3–9; "The Socio-Biology of Man," the *Scientific Monthly*, L (1940), 483–90; "Problems and Methods Relating to the Study of Race," *Psychiatry*, III (1941), 493–506; "Race, Caste and Scientific Method," *Psychiatry*, IV (1941), 337–38; "The Concept of Race in the Light of Genetics," the *Journal of Heredity*, XXXII (1941), 243–47; "The Genetical Theory of Race, and Anthropological Method," *American Anthropologist*, XLIV (1942), 369–75. All these articles have been thoroughly rewritten and revised. To the editors and proprietors of the journals in which they originally appeared I am grateful for permission to make use of them in the writing of the present volume.

Professors Franz Boas and Ruth Benedict of the Department of Anthropology, Otto Klineberg of the Department of Psychology, Robert K. Merton of the Department of Sociology, all of Columbia University, Professor E. G. Conklin of Princeton, and Professor Conway Zirkle of the Department of Botany, University of Pennsylvania, have read the following pages in manuscript and have made many suggestions for its improvement. For this service I am deeply grateful to each of them, as I am to Mr. Aldous Huxley for his excellent

Foreword, which was originally written for a briefer version of this book. For all errors of commission and omission and for all the views expressed in this volume, unless specifically credited to others, I alone am responsible.

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9 June 1942

PREFACE
TO THE SECOND EDITION

THE RESPONSE to the first edition of this book has been very gratifying, calling for reprinting within a year and a new edition within two years of its publication. In these disjointed times the book apparently fills a need. As most of the reviewers perceived, it does not proceed along conventional lines, and I suppose it owes some measure of its success to its unconventional character. It is said, by way of improvement on the original, that the way to hell is "paved with good conventions"; possibly the way to salvation lies over the broken fragments of those conventions. Those who have experienced some difficulty in negotiating the new way have been very few indeed. The new road over the fragments of the old seems a sturdy enough structure.

Since this book first left the press the world has been horrified by the calculated murder of millions of Jews and Poles by the Nazis. This represents the practical realization of the doctrine of "racism" which has been so viciously enthroned as a political doctrine in the Nazi *Weltanschauung*. That doctrine, from beginning to end, is an absurdity; but absurdities have never wanted for believers, and, as Voltaire remarked, "as long as pople believe in absurdities they will continue to commit atrocities."

We, in the United States, have every hope of eradicating the contagion of "racism" from our own body politic; but hope alone will not suffice. We must act, and in order to do so intelligently we must know what this disease is and how it may best be dealt with. At a time when "race" riots have awakened many Americans to the seriousness of the problem of "race" on their very own hearths, when discrimination against colored and minority groups in the armed forces and in industry has shocked many Americans into an awareness

of their own guilt, it is incumbent upon every decent American to acquaint himself with the facts relating to the "race" problem, so that he may be prepared to deal with it in an intelligent, efficient, and humane manner.

It is even yet not widely enough realized that from its earliest beginnings the doctrine of the racists has had as its object the overthrow of democracy. This should become clear to anyone who reads the account which is given in the following pages of the rise and development of that doctrine. As *The New Republic* (14 August 1944) put it in commenting on the Philadelphia rapid-transit strike, "although good work is being done here and there on a limited and local scale to promote interracial understanding, the problem as a whole is rushing to a major climax. Unless we can master it it will continue to offer the greatest threat to our democracy."

I have tried to make the present edition of the book very much more helpful in a practical way than was the first edition, and I trust I have satisfied Mr. Aldous Huxley's hope that I discuss the remedies for the social disease of racism.

In the present edition the text has been thoroughly revised, and much new material has been added. Four new chapters and three new appendixes have been added. These are, "Race and Blood," "Myths Relating to the Physical Characters of the American Negro," "Are the Jews a Race?" "What Is the Solution?" and Appendices A, B, and D. The four new chapters have already appeared elsewhere. For permission to reproduce them here in revised form I am grateful to the editors of the journals in which they were first published. "The Myth of Blood," *Psychiatry*, VI (1943), 15–19; "The Physical Anthropology of the American Negro," *Psychiatry*, VII (1944), 31–44; "Are the Jews a Race?" *The Chicago Jewish Forum*, II (1944), 77–86; "What Is the Solution?" *Educational Administration and Supervision*, XXX (1944), 424–30.

In order to meet the requirements of those who may wish to pursue various aspects of the subject farther, I have considerably increased the number of references to the literature. In

this connection I have been at particular pains to bring to the reader's attention many excellent studies which are not usually mentioned in works of this kind.

The second edition of this work has greatly benefited from the critical reading which it received in manuscript from my friends Professor Theodosius Dobzhansky, of the Department of Zoölogy, Columbia University, and Professor and Mrs. William Boyd, of the Department of Biochemistry, Boston University. My grateful thanks are due to each of them. To Professor A. A. Neuman, principal of Dropsie College, Philadelphia, I owe many thanks for his very helpful reading of Chapter 13. To my daughter Audrey Montagu my thanks are due for her very efficient reading to me of part of the manuscript while I typed it. I am much indebted to my wife for reading the galleys.

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Contents

1

THE ORIGIN OF THE CONCEPT OF "RACE"

THE IDEA OF "RACE" represents one of the greatest errors, if not the greatest error, of our time, and the most tragic. What "race" is everyone seems to know, and is only too eager to tell. All but a very few individuals take it completely for granted that scientists have established the "facts" about "race" and that they have long ago recognized and classified the "races" of mankind. Scientists do little to discourage this view, and, indeed, many of them are quite as deluded as most laymen are about the subject. It is not difficult to see, therefore, why most of us continue to believe that "race" really corresponds to something which exists. As Hogben has remarked: "Geneticists believe that anthropologists have decided what a race is. Ethnologists assume that their classifications embody principles which genetic science has proved correct. Politicians believe that their prejudices have the sanction of genetic laws and the findings of physical anthropology to sustain them." [1] Actually, none of them have any grounds, but those which spring from their prejudices, for such beliefs.

Lord Bryce has very cogently remarked: "No branches of historical inquiry have suffered more from fanciful speculation than those which relate to the origin and attributes of the races of mankind. The differentiation of these races began in prehistoric darkness, and the more obscure a subject is, so much the more fascinating. Hypotheses are tempting, because though it may be impossible to verify them, it is, in the paucity of data, almost equally impossible to refute them." [2]

Certainly it is true that many scientists have attempted to

[1] Hogben, "The Concept of Race," in *Genetic Principles in Medicine and Social Science*, pp. 122–44.

[2] Bryce, *Race Sentiment as a Factor in History*, p. 3.

classify and fit the varieties of mankind into definite groups, the so-called "races," but all such attempts have thus far met with complete failure, because they were too arbitrary and were based upon a misconception of the nature and variability of the characters to be classified. It is easy to see that an African Negro and a white Englishman must have had a somewhat different biological history and that their obvious physical differences would justify the biologist in classifying them as belonging to two different races. In biology a race is defined as a subdivision of a species which inherits physical characteristics distinguishing it from other populations of the species. In this sense there are a number of human races. But this is not the sense in which most of the older and many of the modern physical anthropologists, race classifiers, and racists have used the term.

In the biological sense there do, of course, exist races of mankind. That is to say, mankind may be regarded as being comprised of a small number of groups which as such are often physically sufficiently distinguishable from one another to justify their being classified as separate races. But not all groups of mankind can be so classified. For example, Germans, taken as a whole, do not differ sufficiently from Englishmen or any other people of Western Europe to justify their separation into a distinct race or variety. All the peoples of Western Europe belong to the same race, the White race, and the differences some of them exhibit simply represent small local differences arising from either circumscribed inbreeding or crossbreeding with members of a different racial group. In Eastern Europe, among the Russians, the influence of Mongoloid admixture is to this day discernible in a small proportion of Russians far removed from the geographic habitat of the Mongoloids. But this admixture does not make such Russians members of a distinct race. In Russia, as in America, there are many different local types of men, but the majority of these belong to the white division of mankind. In Russia some are obviously of Mongoloid origin, and in America some are

of Negroid origin, but in both countries it is often difficult so say whether a person belongs to the one racial group or the other. It is just such difficulties as these which render it impossible to make the sort of racial classifications which some anthropologists and others have attempted.[3] The fact is that all human beings are so much mixed with regard to origin that between different groups of individuals intergradation and "overlapping" of physical characters is the rule. It is for this reason that it is difficult to draw up more than a very few hard and fast distinctions between even the most extreme types. As Huxley and Haddon have remarked, "The essential reality of the existing situation . . . is not the hypothetical sub-species or races, but the *mixed ethnic groups,* which can never be genetically purified into their original components, or purged of the variability which they owe to past crossing. Most anthropological writings of the past and many of the present fail to take account of this fundamental fact." [4]

The classifiers of the "races" of mankind who have devised the various classificatory schemes of mankind during the last hundred years have mostly agreed in one respect—they have unexceptionally taken for granted the one thing which they were attempting to prove, namely, the existence of human "races." Starting off with the fact that "extreme" types of mankind, such as Negro, white, and Mongol, could obviously be recognized as races, they proceeded to refine these grosser classifications by attempting to fit local groups of mankind into similar racial schemes. Thus, to take a contemporary example, Coon has recently created a large number of new European "races" and "sub-races" upon the basis, principally, of slight differences in the characters of the head exhibited by different groups of Europeans, and this in spite of the fact

[3] For the latest anthropological example of this fractionating method see Coon, *The Races of Europe.*

[4] Huxley and Haddon, *We Europeans,* p. 114. In order to avoid possible misunderstanding of this passage, it is desirable to point out that by the words "genetically purified into their original components" the authors do not have reference to preëxisting "pure races," but to the earlier states of their ancestral groups.

that it has been repeatedly shown that the form of the head is not as constant a character as was formerly believed.[5] It is true that some biologists have seen fit to create new sub-races among lower animals on the basis of such single slight characters as difference in pigmentation of the hair on a part of the tail. Such a procedure would be perfectly justifiable if it were taxonomically helpful. One would not even have to make the requirement that animals in other groups shall not exhibit this character, but one would have to insist that every member of one or both sexes of the new subrace shall exhibit it. No such requirement is fulfilled by the "races" and "subraces" which Coon has created.

Coon simply assumes that within any group a certain numerical preponderance of heads of specified diameters and, let us say, noses of a certain shape and individuals of a certain stature are sufficient to justify the creation of a new "race" or "sub-race." Few biologists would consider such a procedure justifiable, and there are few anthropologists who would. Yet this kind of overzealous taxonomy, which has its origin principally in the desire to force facts to fit preëxisting theories, continues down to the present day. More often than not such theories do not even require the sanction of facts to be put forward as such. Thus, the term "race" and the concept for which it stands represent one of the worst examples we know of a word which from the outset begs the whole question.

The very failure of ambitious anthropological attempts at classification strongly suggests that human races do not, in fact, exist in anything like the number that many of these classifiers would have us believe.

From the standpoint of a classificatory view of mankind which has due regard for the facts it is possible to recognize four distinctive stocks or divisions of mankind. These are the

[5] Boas, *Changes in Bodily Form of Descendants of Immigrants;* Shapiro, *Migration and Environment;* Dornfeldt, "Studien über Schädelform und Schädelveränderung von Berliner Ostjuden und ihren Kindern," *Zeit. f. Morph. u. Anthrop.*, XXXIX (1941), 290–372; Goldstein, *Demographic and Bodily Changes in Descendants of Mexican Immigrants.*

Negroid or black, the Archaic white or Australoid,[6] the Caucasoid or white, and the Mongoloid stocks or divisions of mankind. It is preferable to speak of these four large groups of mankind as *divisions* rather than as *races,* and to speak of the varieties of men which enter into the formation of these divisions as *ethnic groups.*[7] The use of the term "division" emphasizes the fact that we are dealing with a major group of mankind sufficiently distinguishable in its physical characters from the three other major groups of mankind to be classified separately. Nothing more is implied in the term than that.

Within the four divisions of mankind there exist many local types, but most of these local types are very much mixed, so that only in a relatively small number of cases is it possible to distinguish distinctive local types or ethnic groups among them. Every honest attempt to discuss such types or ethnic groups within the larger parent groups or divisions deserves the fullest encouragement. Truth will not be advanced by denying the existence of large groups of mankind characterized, more or less, by distinctive inherited physical traits. Such physical differences are found in geographical and genetic races of animals and plants in a state of nature, and in many races of domestic animals and cultivated plants. They are, to a certain extent, also found in the human species, but in a much more fluid condition, since the biological development and diversification of mankind has proceeded upon very different lines from that which has characterized animals and plants. No animal or plant has had a comparable history of migration and hybridization, and that is the fundamentally important fact to be remembered when comparisons are made between man and other living forms. Not one of the great divisions of man is unmixed, nor is any one of its ethnic groups pure; all are, indeed, much mixed and of exceedingly complex descent. Nor is there any scientific justification for

[6] The Archaic white or Australoid stock is really a subdivision, larger than an ethnic group, of the Caucasoid division. For a more detailed discussion and classification of the divisions and ethnic groups of mankind see Montagu, *An Introduction to Physical Anthropology.*

[7] For a definition of ethnic group see p. 43.

overzealous or emotional claims that any one of them is in any way superior to another.

The differences between the four great divisions of man and between the ethnic groups comprising them represent merely a distribution of variations which, for reasons which may be fairly clearly understood, occur more frequently in one group than they do in another. We shall deal with these reasons later.

It has already been pointed out that in biological usage a race is conceived to be a subdivision of a species which inherits the *physical* characteristics serving to distinguish it from other populations of the species. In the genetic sense a race may be defined as a population which differs in the incidence of certain genes from other populations, with one or more of which it is exchanging or is potentially capable of exchanging genes across whatever boundaries (usually geographical) may separate them.[8] If we are asked whether in this sense there exist a fair number of races in the human species, the answer is very definitely that there do. But this is not the sense in which the racists and many of the race classifiers employ the term. For them "race" represents a compound of physical, mental, personality, and cultural traits which determines the behavior of the individuals inheriting this alleged compound.

Let us see, as an example typical of this school, what a leading exponent of Nazi "race science," Dr. Lothar G. Tirala, has to say upon this subject.[9] He begins by asserting that it is "a well-grounded view that it is highly probable that different human races originated independently of one another and that they evolved out of different species of ape-men. The so-called main races of mankind are not races, but species."

Far from being "well-grounded," this is a view which no biologist and no anthropologist with whom I am familiar would accept. It is today generally agreed that all men belong to the same species, that all were probably derived from the same ancestral stock, and that all share in a common patrimony.

[8] Dobzhansky, "On Species and Races of Living and Fossil Man," *Amer. J. Phys. Anthrop.*, N.S., II (1944), 251–65.

[9] Tirala, *Rasse, Geist und Seele.*

But Dr. Tirala's principle argument is that "the voice of blood and race operates down to the last refinements of thought and exercises a decisive influence on the direction of thought." Hence, "race science proves" that there exist irreconcilable differences in soul, mind, and blood between the numerous "races" which German "race scientists" have recognized. And, of course, that the German, or "Aryan," "race" is the "superior" and "master" "race." [10]

Such views and the practices to which they lead are far from being limited to the Germans. Actually they are to be found in many lands. In America discrimination against colored peoples is of long standing.[11] Modern writers such as Lothrop Stoddard, Madison Grant, and Henry Fairfield Osborn have freely espoused racist views of the most reactionary kind. Osborn, in his preface to Madison Grant's book, writes, "race has played a far larger part than either language or nationality in moulding the destinies of men; race implies heredity, and heredity implies all the moral, social, and intellectual characteristics and traits which are the springs of politics and government." [12]

Endlessly shuffled and reshuffled, this is a typical statement of the racist position. It is alleged that something called "race" is the prime determiner of all the important traits of body and soul, of character and personality, of human beings and nations. And it is further alleged that this something called

10 For an interesting account of the Nazi application of the "methods" of "race science" in which the writer himself repeats many of the favored Nazi doctrines, see T. U. H. Ellinger, "On the Breeding of Aryans," *Journal of Heredity*, XXXIII (1942), 141–43. For replies to this article see Goldschmidt, "Anthropological Determination of 'Aryanism,'" *Journal of Heredity*, XXXIII (1942), 215–16, and Montagu, "On the Breeding of 'Aryans,'" *Psychiatry*, VI (1943), 254–55.

11 See Appendix C, p. 262. In at least one state of the Union a book such as this is against the law. Mississippi, 1930 Code Ann., sec. 1103: "Any person, firm or corporation who shall be guilty of printing, publishing or circulating printed, typewritten or written matter urging or presenting for public acceptance or general information, arguments or suggestions in favor of social equality or of intermarriage between whites and negroes, shall be guilty of a misdemeanour and subject to a fine not exceeding five hundred dollars or imprisonment not exceeding six months or both fine and imprisonment in the discretion of the court."

12 Osborn, in Grant, *The Passing of the Great Race*, p. vii.

"race" is a fixed and unchangeable part of the germ plasm, which, transmitted from generation to generation, unfolds in each people as a typical expression of personality and culture.

Such a conception of "race" has no basis in scientific fact or in any other kind of demonstrable fact. It is a pure myth, and it is the tragic myth of our tragic era. Tragic, because it is believed and made the basis for action, in one way or another, by so many people in our time. It is this conception of "race" which will be principally examined in the following pages.

The modern conception of "race" is of fairly recent origin. Neither in the ancient world nor in the world up to the latter part of the eighteenth century did there exist any notion corresponding to it. Caste and class differences certainly were made the basis for discrimination in many societies, and in ancient Greece some attempt was even made to find a biological foundation for such discrimination, but this was of a very limited nature and never gained general acceptance.[13]

A study of the cultures and literatures of mankind, both ancient and recent, shows us that the conception that there are natural or biological races of mankind which differ from one another mentally as well as physically is an idea which was not born until the latter part of the eighteenth century. In this connection, Lord Bryce, after surveying conditions in the ancient world, in the Middle Ages, and in modern times up to the French Revolution, arrives at the following conclusions, which he regards as broadly true. The survey of the facts, he says, "has shown us that down till the days of the French Revolution there had been very little in any country, or at any time of self-conscious racial feeling . . . however much men of different races may have striven with one another, it was seldom any sense of racial opposition that caused their strife. They fought for land. They plundered one another. . . . But strong as patriotism and national feeling

[13] Diller, *Race Mixture among the Greeks Before Alexander;* Hertz, *Race and Civilization*, pp. 137 ff.; Nilsson, "The Race Problem of the Roman Empire," *Hereditas*, II (1921), 370–90; Detweiler, "The Rise of Modern Race Antagonisms," *American Journal of Sociology*, XXXVIII (1932), 738–47.

might be, they did not think of themselves in terms of ethnology, and in making war for every other sort of reason never made it for the sake of imposing their own type of civilization. . . . In none of such cases did the thought of racial distinctions come to the front."[14]

Within any society men might be persecuted or made the object of discrimination on the grounds of differences in religion, culture, politics, or class, but never on any biological grounds such as are implied in the idea of "racial" differences.

In Europe during the Middle Ages and also during the Renaissance the Jews, for example, were singled out for discrimination and persecution, but this was always done on social or cultural or religious grounds. The Jews, it was urged, had killed Christ; they were accused of murdering Christian children and using their blood for ritual purposes; they were infidels, anti-Christians, usurers; they were almost everything under the sun; but whatever was held against them was never attributed to biological reasons. The "racial" interpretation is a modern "discovery"; that is the important point to grasp. The objection to any people on "racial" or biological grounds is a purely modern innovation. That is the basic sense in which modern group antagonism differs from that which prevailed in earlier periods.

It is perfectly true that in ancient Rome, as in ancient Greece, the suggestion was sometimes heard that other peoples were more stupid than they and that occasionally an attempt was made to link this up with biological factors; but this idea, at no time clearly or forcibly expressed, seems, as we have already said, never to have taken root. On the other hand, in a stratified society based upon slavery, in which birth was definitely related to social status, it can easily be seen how the notion of the biological character of social classes, as of the individuals comprising them, could have originated. Yet anything remotely resembling such an idea was held by no more than a handful of Greek and Roman thinkers, and never for a moment extended beyond the boundaries of their own

[14] Bryce, *op. cit.*, pp. 25–26.

esoteric circles. It was only among peoples who had themselves for centuries been emancipated from serfdom and slavery that the hereditary or biological conception of race differences was developed. What is of the greatest interest and importance for an understanding of this matter is that the concept developed as a direct result of the trade in slaves by European merchants. But what is of even greater interest and importance is that as long as the trade was taken for granted and no one raised a voice against it, the slaves, though treated as chattels, were nonetheless conceded to be human in every sense but that of social status. This may well be seen in the treatment accorded to slaves in Portugal and Spain, where many of them rose to high positions in Church and State. Portugal, it should be remembered, initiated the African slave trade as early as the middle of the fifteenth century. A study of the documents of the English and American slave traders down to the eighteenth century also serves to show that these men held no other conception of their victims than that by virtue of their position as slaves, or potential slaves, they were socially their captors' caste inferiors. But that was not all, for many of these hard-headed, hard-bitten men recorded their belief that their victims were often quite clearly their own mental equals and superior to many at home.[15]

It was only when voices began to make themselves heard against the inhuman traffic in slaves and when these voices assumed the shape of influential men and organizations that, on the defensive, the supporters of slavery were forced to look about them for reasons of a new kind to controvert the dangerous arguments of their opponents. The abolitionists argued that those who were enslaved were as good human beings as those who had enslaved them. To this, by way of reply, the champions of slavery could only attempt to show that the slaves were most certainly not as good as their masters. And in this highly charged emotional atmosphere there began the

[15] Donnan, *Documents Illustrative of the History of the Slave Trade to America.*

recitation of the catalogue of differences which were alleged to prove the inferiority of the slave to his master.[16]

I have thus far only had in mind the literature published in England during the latter half of the eighteenth century. Much of this literature found its way to the American colonies, and after the successful conclusion of the War of Independence a certain amount of controversial literature was published in this country. In France and in Holland similar works were making their appearance. It is also well to remember that it was during this period that the conception of the noble savage was born in France and that the romantics were not slow to capitalize upon the new-found theme in such novels as Bernardin de Saint-Pierre's *Paul et Virginie* (1788).[17] In Germany, during this period, we have such distinguished thinkers as Kant, Hardenberg, Herder, Goethe, and Novalis, not to mention many others, emphasizing the unity of mankind. Herder, in particular, foresaw the danger of those loose and prejudiced utterances of the defenders of the institution of slavery, and in a memorable passage of his great book *Ideen zur Philosophie der Geschichte der Menschheit,* one of the most beautiful expressions of the human spirit ever composed, he writes: "I could wish the distinctions between the human species, that have been made from a laudable zeal for discriminating science, not carried beyond due bounds. Some for instance have thought fit to employ the term *races* for four or five divisions, originally made in consequence of country or complexion: but I see no reason for this appellation. Race refers to a difference of origin, which in this case does not exist, or in each of these countries, and under each of these complexions, comprises the most different races. . . . In short, there are neither four or five races, nor exclusive

16 So far as I know, an historical study of this aspect of the subject has never been attempted. It would make a fascinating and highly desirable contribution to our better understanding of the period and of the antecedents of racism.

17 For an account of the rise and development of the convention of the noble savage in French and, particularly, in English literature see Fairchild, *The Noble Savage;* see also Dykes, *The Negro in English Romantic Thought.*

varieties, on this Earth. Complexions run into each other: forms follow the genetic character: and upon the whole, all are at last but shades of the same great picture, extending through all ages, and over all parts of the Earth. They belong not, therefore, so properly to systematic natural history, as to the physico-geographical history of man."

This was written in 1784, and I have quoted from the English translation of 1803.[18] That Herder was able to write so clearly and sensibly was principally due to the fact that a young countryman of his had, in 1775, at the age of 23, published a work entitled *De generis humani varietate,* that is to say, *On the Natural Variety of Mankind.* In this work the author, Johann Friedrich Blumenbach, set out to classify the varieties of mankind and to show what significance was to be attached to the differences, physical and mental, which were supposed to exist between them. He warned at the outset that no sharp distinctions could be made between peoples. Thus, he writes: "Although there seems to be a great difference between widely separate nations, that you might easily take the inhabitants of the Cape of Good Hope, the Greenlanders, and the Circassians for so many different species of men, yet when the matter is thoroughly considered, you see that all do so run into one another, and that one variety of mankind does so sensibly pass into the other, that you cannot mark out the limits between them.

"Very arbitrary indeed both in number and definition have been the varieties of mankind accepted by eminent men." [19]

In the greatly enlarged and revised third edition of this work, published in 1795, Blumenbach concluded that "no variety of mankind exists, whether of colour, countenance, or stature, etc., so singular as not to be connected with others of the same kind by such an imperceptible transition, that it is

[18] Herder, *Outlines of a Philosophy of the History of Man;* translated by T. Churchill, I, 298.

[19] Blumenbach, *On the Natural Variety of Mankind,* trans. and ed. by Thomas Bendyshe, in *The Anthropological Treatises of Johann Friedrich Blumenbach,* pp. 99 ff.

very clear they are all related, or only differ from each other in degree."

Not only did Blumenbach make clear the essential unity of mankind, but he also clearly recognized and unequivocally stated the fact that all classifications of the so-called "varieties" of mankind are arbitrary. "Still," he remarked, "it will be found serviceable to the memory to have constituted certain classes into which the men of our planet may be divided." [20]

The history of physical anthropology, after the death of Blumenbach in 1840, may be described in terms of the gradual inversion of this genetic approach to the problem of the variety of mankind. The investigation of causes steadily gave way to the description of effects, as if the classification of mankind into as distinctive groups as it was possible to create were the proper function of a science of physical anthropology. The Darwinian conception of evolution understood as dealing with continuous materials which, without *selection,* would remain unchanged, led anthropologists to believe that taxonomic exercises in the classification of mankind, both living and extinct, would eventually succeed in elucidating the relationships of the various groups of mankind to one another. We now know, however, that the materials of evolution are not continuous, but discontinuous, and that these materials are particulate, independent genes, which are inherently variable and unstable. Thus, classifications based on the shifting sands of morphological characters and physique can be extremely misleading.[21] How misleading may be gathered from the fact that in nature there actually exist many groups of individuals in different phyla which are distinct species in every sense but the morphological sense.[22] The converse is also

[20] *Ibid.*

[21] For a brilliant discussion of this subject see Hogben, "The Concept of Race," in his *Genetic Principles in Medicine and Social Science*, pp. 122–44.

[22] Thorpe, "Biological Races in *Hyponemeuta padella* L.," *Journal of the Linnaean Society* (Zoölogy), XXXVI (1928), 621; Thorpe, "Biological Races in Insects and Allied Groups," *Biological Reviews*, V (1930), 177; "Ecology and the Future of Systematics," in *The New Systematics* (edited by Julian Huxley), p. 358. Dobzhansky and Epling, *Contributions to the Genetics, Taxonomy, and Ecology of Drosophila pseudoobscura and Its Relatives.*

true—that is, individuals of the same species may exhibit morphological differences which the taxonomist would be led to assign to different specific rank. Such classificatory efforts belong to the pre-Mendelian era. Then, as now, the concept of the continuity of species and the existence of transitional forms was associated with a belief in missing links. The anthropologist conceived his task to be to discover these links so that when they were all joined together we should have a complete Great Chain of Being leading from the most "primitive" to the most "advanced" form of man.[23] In this manner was established a "racial" anthropology which sought to identify some of these links among existing peoples upon the basis of the physical differences which averaged groups of them exhibited. As Linton has remarked, "unfortunately, the early guesses on these points became dogmas which still have a strong influence on the thought of many workers in this field." [24]

It may be noted here that at the beginning of the nineteenth century Cuvier had clearly forseen the danger of such arbitrary procedures, and in the preface to his *Le Regne animal* (Paris, 1817) he explained: "It formed no part of my design to arrange the animated tribes according to gradations of relative superiority, nor do I conceive such a plan to be practical. I do not believe that the mammalia and the birds placed last are the most imperfect of their class; still less do I think that the last of the mammiferous tribes are superior to the foremost of the feathered race or that the last of the mollusca are more perfect than the first of the annelides or zoöphytes. I do not believe this to be, even if we understand the vague term *perfect* in the sense of 'most completely organized.' I have considered my divisions only as a scale of resemblance between the individuals classed under them. It is impossible to deny that a kind of step downward from one species to another may occasionally be observed. But this is far from being

[23] For a critical discussion of such terms as "advanced" and "primitive" see Montagu, "Some Anthropological Terms: A Study in the Systematics of Confusion," *American Anthropologist*, XLVII (1945), 119–33.

[24] Linton, *The Study of Man*, p. 22.

general, and the pretended scale of life, founded on the erroneous application of some partial remarks, to the immensity of organized nature, has proved essentially detrimental to the progress of natural history in modern times." [25]

Throughout Blumenbach's great work and the several editions which followed it the author carefully examined and rebutted, point by point, many of the arguments which had been brought forward to prove the inequality of the varieties of man and most convincingly showed that there was no good reason to believe anything other than that they were essentially equal. Thus, the treatise which is properly regarded as having laid the foundations of the science of physical anthropology stood four square for the essential relative mental and physical equality of man. The writings which such works inspired were many and important.

For example, Blumenbach's pupil Alexander von Humboldt writes: "Whilst we maintain the unity of the human species, we at the same time repel the depressing assumption of superior and inferior races of men. There are nations more susceptible of cultivation, more highly civilized, more ennobled by mental cultivation than others—but none in themselves nobler than others. All are in like degree designed for freedom; a freedom which in the ruder conditions of society belongs only to the individual, but which in social states enjoying political institutions appertains as a right to the whole body of the community." And then Alexander quotes his brother Wilhelm, who writes: "If we would indicate an idea which throughout the whole course of history has ever more and more widely extended its empire—or which more than any other, testifies to the much contested and still more decidedly misunderstood perfectibility of the whole human race—it is that of establishing our common humanity—of striving to remove the barriers which prejudice and limited views of every kind have erected amongst men, and to treat all mankind without reference to religion, nation, or colour, as one fraternity, one great community, fitted for the attainment of

[25] Cuvier, *Le Regne animal,* I, iv–vi.

one object, the unrestrained development of the psychical powers. This is the ultimate and highest aim of society, identical with the direction implanted by nature in the mind of man towards the indefinite extension of his existence. He regards the earth in all its limits, and the heavens as far as his eye can scan their bright and starry depths, as inwardly his own, given to him as the objects of his contemplation, and as a field for the development of his energies . . . the recognition of the bond of humanity becomes one of the noblest leading principles in the history of mankind." [26] Such writings and the humanitarian efforts of the abolitionists eventually told upon public opinion, and in 1808 Britain forever abolished the slave trade, while America soon followed suit. But slavery survived as an institution in the United States for almost sixty years more, and during that period the issue which it presented kept the subject of "race" differences always at white-hot temperature.

But to return to the beginning. When we examine the scientific literature of the seventeenth century with a view to discovering what beliefs were held concerning the variety of man, we find that it was universally believed that mankind was comprised of a single species and that it represented a unitary whole. With one or two heretical exceptions it was the accepted belief that all the children of mankind were one and that all had a common ancestry in Adam and Eve. Physical differences were, of course, known to exist between groups of mankind, but what was unfamiliar was the notion that the differences exhibited by such peoples represented anything fundamental. Such differences, it was believed, could all be explained as due to the action of differing climatic and similar physiographic factors. Mankind was essentially one. Questions concerning the variety of mankind occurred to very few thinkers during the seventeenth century, not because the known varieties of man were so few that they suggested no problem requiring solution, but prin-

[26] Alexander von Humboldt, *Cosmos*, pp. 368–69; Wilhelm von Humboldt, *Über die Kawi-Sprache auf der Insel Java*, III, 426.

cipally, it would seem, because the conception of the "superiority" or "inferiority" of "races" which followed upon the increasing exploitation of other peoples had not yet developed to the point of creating a "race problem" and of thus focussing attention upon the significance of the variety presented by mankind. It was not until the economic relations of Europe and the peoples of other remote countries had given rise to the necessity of defining their place in nature that attempts were made to deal with this problem, and such attempts naturally first appeared toward the end of the eighteenth century. It was only then that the poet could write:

> Let observation with extensive view
> Survey mankind from China to Peru.

Today "racism" has become an important ideological weapon of imperialistic politics.[27]

During the whole of the seventeenth century only five discussions relating to the varieties of mankind were published, and toward the end of the century Leibnitz, the great mathematician, summed up the prevailing view as to the nature of the peoples of the earth when he wrote: "I recollect reading somewhere, though I cannot find the passage, that a certain traveler had divided man into certain tribes, races, or classes. He made one special race of the Lapps and Samoyedes, another of the Chinese and their neighbors, another of the Caffres, or Hottentots. In America, again, there is a marvelous difference between the Galibs, or Caribs, who are very brave and spirited, and those of Paraguay, who seem to be infants or in pupilage all their lives. That, however, is no reason why all men who inhabit the earth should not be of the same race,

[27] For a valuable discussion of this matter see Arendt, "Race Thinking before Racism," *The Review of Politics*, VI (1944), 36–73. "It is highly probable that thinking in terms of race would have disappeared in due time together with other irresponsible opinions of the nineteenth century, if the 'scramble for Africa' and the new era of Imperialism had not exposed Western humanity to new and shocking experiences. Imperialism would have necessitated the invention of racism as the only possible 'explanation' and excuse for its deeds, even if no race-thinking ever had existed in the civilized world," p. 73. See also "Racism and Imperialism," in Hofstadter's *Social Darwinism in American Thought, 1860–1915*.

which has been altered by different climates, as we see that beasts and plants change their nature and improve or degenerate." [28]

The work which Leibnitz had in mind was a very brief anonymous essay published in the *Journal des Sçavans,* 24 April 1684, but it remained almost completely unnoticed.[29] "Race" was definitely not yet in the air. It was not until 1749 that Buffon introduced the word "race," in its zoölogical sense, into the scientific literature.[30] It is very commonly stated that Buffon classified mankind into six races. Buffon, who was the enemy of all rigid classifications, did nothing of the sort.[31] What he did was to describe all the varieties of man known to him in a purely descriptive manner. This is how he begins: "In Lapland, and on the northern coasts of Tartary, we find a race of men of an uncouth figure, and small stature." And this is the type of Buffon's description. Here the word "race" is used for the first time in a scientific context, and it is quite clear, after reading Buffon, that he uses the word in no narrowly defined, but rather in a general, sense.[32] Since Buffon's works were very widely read and were translated into many European languages, he must be held at least partially responsible for the diffusion of the idea of a natural separation of the "races" of man. With the voyages of discovery of Bougainville (1761–1766), of Wallis-Carteret (1766), of Captain Cook (1768–1779), and many others in the eighteenth

[28] Leibnitz, *Otium Hanoveriana; sive, Miscellanea,* p. 37.

[29] [Bernier.] "Nouvelle division de la Terre, par les différentes Espèces ou races d'hommes qui l'habitant, envoyée par un fameux Voyageur à Monsieur . . . à peu près en ces termes," *Journal des Sçavans,* April 24, 1684, pp. 148–55.

[30] Buffon, *Histoire naturelle, générale et particulière,* Paris, 1749. *Natural History, General and Particular,* trans. by William Smellie, corrected by William Wood, London, 1812, III, 302 ff.

[31] Hrdlička, for example, lists six varieties as purporting to be "Buffon's classification."—"The Races of Man," in *Scientific Aspects of the Race Problem,* p. 174.

[32] The word "race" had previously been used for the first time by François Tant in a book entitled *Thrésor de la langue françaíse* published in 1600. Tant derived the word from the Latin *radix,* a root, and stated that "it alludes to the extraction of a man, of a dog, of a horse; as one says of good or bad race." See Paul Topinard, "De la notion de race en anthropologie," *Revue d'Anthropologie,* 2d ser., II (1879), 590.

century, there was opened up to the view of Europe many new varieties of mankind—people hitherto undreamed of who thickly populated the islands of the South Seas, of Melanesia, and the Antipodes. Soon the inhabitants of the most distant parts of the world began to be described, pictured, and some of their skulls and handiwork were collected and put on display.

Meanwhile, the African slave trade had increased to enormous proportions, and when for the first time the traffic was seriously opposed and challenged, the question of the status and relation of the varieties of man became the subject of heated debate.

When the issue of slavery was at last settled in England, it was far from being so in France and Holland. It was not until 1848 that the French emancipated their Negroes, and not until 1863 that the Dutch liberated their slaves. During all these years the monstrous "race" legend was continually being reënforced by the advocates of slavery, so that when the matter was finally settled in favor of the freedom of the slaves, the "race" legend nonetheless persisted. It served to solace the hearts of the aggrieved supporters of slavery, while now, more than ever, they saw to it that the myths and legends which they had served to popularize should continue.

The idea of "race" was not so much the deliberate creation of a caste seeking to defend its privileges against what was regarded as an inferior social caste as it was the strategic elaboration of erroneous notions which had long been held by many slaveholders. In order to bolster up those rights, the superior caste did not have far to seek for reasons which would serve to justify its conduct. The illiteracy and spiritual benightedness of the slaves supplied plenty of material for elaboration on the theme of their essential inferiority. Their different physical appearance provided a convenient peg upon which to hang the argument that this represented the external sign of more profound ineradicable mental and moral inferiorities. It was an easily grasped mode of reasoning, and in this way the obvious difference in their *social* status, in caste status,

was equated with their obviously different *physical* appearance, which, in turn, was taken to indicate a fundamental *biological* difference. Thus was a culturally produced difference in social status converted into a difference in biological status. What was once a social difference was now turned into a biological difference which would serve, it was hoped, to justify and maintain the social difference.[33]

This was a most attractive idea to many members of a society in which the classes were markedly stratified, and it was an idea which had a special appeal for those who were beginning to take an active interest in the scientific study and classification of the "races" of mankind.[34] For the term "race," taken over from Buffon with all the emotional connotations which had been added to it, had by now become established. It was with this tremendous handicap of a term in which the

[33] It is of interest to note here that in what is undoubtedly the best study of the problem of the Negro in America which has ever been made, the author's independent analysis of the historical facts has led him to practically identical conclusions. "The biological ideology had to be utilized as an intellectual explanation of, and a moral apology for, slavery in a society which went out emphatically to invoke as its highest principles the ideas of the inalienable rights of all men to freedom and equality of opportunity." Myrdal, *An American Dilemma: the Negro Problem and Modern Democracy*, I (1944), 83–89. "The *correct* observation that the Negro is inferior was tied up to the *correct* belief that man belongs to the biological universe, and, by twisting logic, the *incorrect* deduction was made that the inferiority is biological in nature." *Ibid.*, p. 97.

[34] We may refer, for example, to the case of the President of the Anthropological Society of London, Dr. James Hunt. On 17 November 1863, Dr. Hunt read a paper before the society entitled "The Negro's Place in Nature," in which he asserted the essential inferiority in every way of the Negro to the white man. "The Negro's Place in Nature," *Memoirs of the Anthropological Society* (London), I (1863), 1–64. This paper was discussed at the meeting in a very dignified manner by everyone, but the egregious and insolent Dr. Hunt, who wound up his reply to his critics with the remark that "all he asked was that scientific evidence of this character should be met by scientific argument, and not by poetical clap-trap, or by gratuitous and worthless assumptions." *The Anthropological Review* (London), I (1863), 391. The paper was the immediate cause of many acrimonious debates, and it was, of course, received with much applause by the proslavery party. When, in 1869, Dr. Hunt died, a New York paper wrote that "Dr. Hunt, in his own clear knowledge and brave enthusiasm, was doing more for humanity, for the welfare of mankind, and for the glory of God, than all the philosophers, humanitarians, philanthropists, statesmen, and, we may say, bishops and clergy of England together." This last quotation is taken by the present writer from Haddon's *History of Anthropology*, p. 45.

very question it was attempted to ask had from the outset already been begged that the anthropologists of the nineteenth century set out on their researches. The question they had begged was the one which required to be proved—namely, that mental and moral differences were associated with "racial" external physical differences. As Wundt once remarked in another connection, "in the seventeenth century God gave the laws of Nature; in the eighteenth century Nature did this herself; and in the nineteenth century individual scientists take care of that task." [85]

As an independent student of the evidence has put it: "When between the years 1859 and 1870, anthropological societies were established successively in Paris, London, New York, Moscow, Florence, Berlin and Vienna, the attention of anthropologists was in the first place directed mainly to the statement and exploration of problems of racial divergence and distribution. The need for such a preliminary investigation was great. Popular opinion drew a rough but ready distinction between men of white, black, yellow and red colour, vaguely supposed to be native to the continents of Europe, Africa, Asia and America respectively. Differences of average stature, of physiognomy, of growth and texture of hair were recognized; certain combinations of these characters were supposed to be typical of certain ultimate stocks. There was the self-satisfied view, influenced by an uncritical acceptance of the Biblical account of the Creation, Flood, dispersion of its survivors, selection of a favoured race, which either alone or [together] conspicuously expressed divine purpose, that divergence from European standard[s] should ultimately be explained in terms of degradation." [86]

It was not the scientific student of the varieties of man who influenced European thought along these lines, but an aristocrat of the Second Empire, an amateur orientalist and professional diplomat, Count Joseph Arthur de Gobineau. Gobineau was a reactionary littérateur who rejected the principles

[85] Wundt, *Philosophische Schriften*, Vol. III (1883).
[86] Foster, *Travels and Settlements of Early Man*, p. 31.

of the French Revolution [37] and looked upon the egalitarian philosophy of the Revolution as the hopelessly confused expression of a degraded rabble. If the founders of the First Republic had believed in the liberty, equality, and fraternity of mankind, this scion of the Second Republic would show that, on the contrary, a man was not bound to be free, that the idea of the brotherhood of man was a vain and empty dream, a repugnant dream which could never be realized because it was based upon a fallacious belief in the equality of man.[38] These views were fully set out by Gobineau in his four-volume work entitled *Essai sur l'inégalité des races humaines* (Paris, 1853–55). In 1856 an American translation of the first two volumes under the title *Moral and Intellectual Diversity of Races* was published at Philadelphia. This was the work of H. Hotz, the Alabama proslavery propagandist. As Finot has pointed out, Gobineau never attempted to conceal or dissimulate the motives which led him to write the *Essai*. For him "it was only a matter of bringing his contributions to the great struggle against equality and the emancipation of the proletariat. Imbued with aristocratic ideas . . . he thought it useful to oppose to the democratic aspirations of his time a number of considerations on the existence of natural castes in humanity and their beneficial necessity." [39] Ever since their publication Gobineau's works have enjoyed a great reputation among reactionaries and demagogues of every kind, and

[37] For an account of Gobineau and a distillation of the essence of Gobineauism by an apostle both of Gobineau and Nietzsche, Dr. Oscar Levy, see Gobineau, *The Renaissance*, trans. by Paul V. Cohn. The introductory essay of some sixty pages by Dr. Levy is an amazing thing.

[38] Observe how from the same motives, this reaction expresses itself in the recent work of one of the most confused of American racists, namely, in Madison Grant's *The Passing of the Great Race*. He writes: "There exists to-day a widespread and fatuous belief in the power of environment, as well as of education and opportunity, to alter heredity, which arises from the dogma of the brotherhood of man, derived in turn from the loose thinkers of the French Revolution and their American mimics. Such beliefs have done much damage in the past, and if allowed to go uncontradicted, may do much more serious damage in the future" (p. 14). It may be remarked here that the history of Europe during the last hundred and fifty years could well be written in terms of reaction to the principles of the French Revolution. This would be a theme well worth the attention of serious historians.

[39] Finot, *Race Prejudice*, p. 7.

forty-five years later the views expressed in these works were taken over lock, stock, and barrel by Houston Stewart Chamberlain and elaborated in his *Grundlagen des neunzehnten Jahrhunderts.*[40] This work, which has been accurately described as "one of the most foolish books ever written," [41] enjoyed an enormous popularity in Germany. Kaiser Wilhelm II called it "my favorite book" and distributed it generously among the nobility and his friends.

Both Gobineau's and Chamberlain's works may be regarded as the spiritual progenitors of Hitler's *Mein Kampf.* In this connection the words of John Oakesmith, written during the first World War, are of interest to those who, by the same forces which were operative then, have since been plunged into a far more horrible war. Oakesmith writes: "The essence of the racial theory, especially as exhibited by the writers of the school of Houston Stewart Chamberlain, is profoundly immoral, as well as unnatural and irrational. It asserts that by virtue of belonging to a certain 'race,' every individual member of it possesses qualities which inevitably destine him to the realization of certain ends; in the case of the German the chief end being universal dominion, all other 'races' being endowed with qualities which as inevitably destine them to submission and slavery to German ideals and German masters. This essentially foolish and immoral conception has been the root-cause of that diseased national egotism whose exhibition during the war has been at once the scorn and the horror of the civilized world." [42]

The German people have especially excelled in the art of

[40] Chamberlain, *Die Grundlagen des neunzehnten Jahrhunderts,* 1899, trans. by John Lees as *Foundations of the Nineteenth Century,* 1910.

[41] Oakesmith, *Race and Nationality,* p. 58. "It is false in its theories; ludicrously inaccurate in its assertions; pompous and extravagant in its style; insolent to its critics and opponents. . . . He frequently uses the term 'lie' and 'liar' of others, while claiming that he is himself constitutionally incapable of lying . . . he is a violent and vulgar charlatan all the time. We say, and say it deliberately, that he is the only author we have read to whose work Sidney Smith's phrase, 'the crapulous eructations of a drunken cobbler,' could appropriately be applied." A judgment with which all impartial critics would agree.

[42] Oakesmith, *Race & Nationality,* p. 50.

creating myths. Luther successfully destroyed the mythological element in Christianity for them, and from the date of that event to the advent of the Nazi Party the Germans have been seeking for some new mythology wherewith to replace it. When he cleared the way for a more purely rational interpretation of the world, Luther failed to forsee that by withdrawing the experience of the mystical, the poetic, the metaphysical, and the dramatic he was building for a time when the people would be glad to embrace a mythology whose barbarity would have appalled him. One may never deprive a people of its feeling of unity with the world, with nature, and with man without providing another set of such metaphysical beliefs—unless one is ready to brook disaster. We may recall the words of Renan, written in 1848: "The serious thing is that we fail to perceive a means of providing humanity in the future with a catechism that will be acceptable henceforth, except on the condition of returning to a state of credulity. Hence, it is possible that the ruin of idealistic beliefs may be fated to follow hard upon the ruin of supernatural beliefs and that the real abasement of the morality of humanity will date from the day it has seen the reality of things. Chimeras have succeeded in obtaining from the good gorilla an astonishing moral effort; do away with the chimeras and part of the factitious energy they aroused will disappear." [48]

In post-war Europe the Germans found themselves especially alone and frustrated. By providing them with a new mythology and making the Germans feel that they belong to a "superior race" the "Herrenvolk," Hitler has provided them with a completely acceptable *Weltanschauung*. The fact that the Nazi "race" theories represent the most ludicrous and vicious mythology that has ever been perpetrated upon a people does not, as we know, prevent these myths from functioning as if they were perfectly true. "If one asks," as Bonger has done, "whether these partisans are even partially successful in proving their thesis, then the answer must be a decided No. It is really no theory at all but a second-rate religion. Things are not proved but only alleged. It resembles the commonly

[48] Renan, *The Future of Science*, p. xviii.

witnessed phenomenon of persons who, quite without reason, fancy themselves (and often their families also) to be more exalted than others. But now it is carried out on a much larger scale, and with much greater detriment to society, since it affects wide-spread groups." [44]

Lord Bryce, writing in 1915 during the first Great War, remarked: "Whatever condemnation may be passed—and justly passed—upon reckless leaders and a ruthless caste that lives for and worships war, it is the popular sentiment behind them, the exaggeration of racial vanity and national pretensions, that has been and is the real source of the mischief, for without such sentiments no caste could exert its baleful power. Such sentiments are not confined to any single nation, and they are even more widespread in the wealthier and more educated classes than in the humbler. . . . It is largely by the educated, by students and writers as well as by political leaders, that the mischief has been done, more or less everywhere, even if most conspicuously in one country." [45]

How much more true are these words today than when they were written more than a quarter of a century ago! We all know only too well to what horrors the reckless "führers" of the Axis nations and their ruthless conduct has led the world, and we have witnessed the exaggeration of "racial" vanity and national pretensions assuming the form of a national religion and serving as an incentive to the common people to follow wherever their "führers" lead. We have seen the virus of the disease spread throughout the greater part of the civilized world in the form of "racism," and we have heard the word "race" bandied about over the ether waves, on the screen, from the pulpit, in our houses of legislature, and used by demagogues in various mischievous ways. In the press, in books of all sorts, and in the magazines the same mischievous looseness of usage is observable. Today, more than at any previous time in the history of man, it is urgently necessary to be clear as to what this term is and what it really means.

The fact is that the modern concept of "race" is a product

[44] Bonger, *Race and Crime*, p. 11.
[45] Bryce, *Race Sentiment as a Factor in History*, p. 31.

of emotional reasoning, and, as we have seen, from their inception "racial" questions have always been discussed in an emotional atmosphere. It might almost be called "the atmosphere of the scapegoat," or possibly, "the atmosphere of frustration or fear of frustration." As a writer in the leading organ of British science, *Nature,* recently remarked: "It is a matter of general experience that racial questions are rarely debated on their merits. In the discussion of the effects of inter-racial breeding among the different varieties of the human stock, the issue is commonly determined by prejudice masquerading as pride of race or political and economic considerations more or less veiled in arguments brought forward in support of a policy of segregation. No appeal is made to what should be the crucial factor, the verdict of science." [46]

And what is the verdict of science? It will be our purpose to make that verdict clear in the following pages. The older school of anthropologists,[47] many of whom are still with us, grappled with the problem unsuccessfully, and the great number of conflicting viewpoints they presented shows that they were, as a whole, never quite clear as to what was to be meant by the term "race." They were, and are, in fact, something less than clear, if not altogether confused. In the following chapter a brief attempt will be made to show how many past and some present anthropologists have come to be confused upon the subject of "race."

[46] "Miscegenation in South Africa," *Nature,* No. 3698, 1940, p. 357. The above remarks refer to the official report of the commissioners appointed by the Union of South Africa under the title *Report of the Commission on Mixed Marriages in South Africa,* Government Printer, Pretoria, 1939. This document provides an interesting case study of "race" prejudice in action. American precedents, laws, and decisions, relating to intermarriage are heavily drawn upon.

[47] In using the term "anthropologist" here and in the succeeding chapter I am referring to the physical anthropologist as distinguished from the cultural anthropologist. Possibly because of their wider and more intimate acquaintance with a variety of different peoples, particularly in the more isolated parts of the world, cultural anthropologists have generally been somewhat more sound on the subject of "race" than have most physical anthropologists.

2

THE MEANINGLESSNESS OF THE OLDER ANTHROPOLOGICAL CONCEPTION OF "RACE"

It is said that when the theory of evolution was first announced it was received by the wife of the Canon of Worcester Cathedral with the remark, "Descended from the apes! My dear, we will hope it is not true. But if it is, let us pray that it may not become generally known."

The attempt to deprive the anthropologist of his belief in "race" may by some be construed as a piece of cruelty akin to that which sought to deprive the Canon's wife of her belief in the doctrine of special creation. Indeed, the anthropological conception of "race" and the belief in special creation have much in common, for "race" is, to a large extent, the special creation of the anthropologist. Many anthropologists take it for granted that "race" corresponds to some sort of physical reality in nature. In fact, the idea of "race" is one of the most fundamental, if not the most fundamental, of the concepts with which the anthropologist has habitually worked. To question the validity of this basic concept upon which he was intellectually brought up as if it were an axiom is something which has thus far occurred only to a very small number of anthropologists. One doesn't question the axioms upon which one's science and one's activity in it are based—at least, not usually. One simply takes them for granted.

But in science, as in life, it is a good practice to attach from time to time a question mark to the facts one takes most for granted. In science such questioning is important, because without it there is a very real danger that certain erroneous or arbitrary ideas, which may originally have been used merely as a convenience, may become so fortified by technicality and so dignified by time that their original infirmities may eventually be wholly concealed.

So with the anthropological conception of "race." It is, indeed, nothing but a whited sepulcher, a conception which in the light of modern field and experimental genetics is utterly erroneous and meaningless; "an absolutist system of metaphysical beliefs," as it has been called.[1] As such it should be dropped from the anthropological, as well as from the popular, vocabulary, for it is a tendentious term which has done an infinite amount of harm and no good at all.

The development of the anthropological conception of "race" may be traced from the scholastic naturalization of Aristotle's doctrine of the predicables of genus, species, difference, property, and accident. From the Middle Ages through the seventeenth century it may be traced to the early days of the Age of Enlightenment, when Linnaeus, in 1735, took over the concepts of class, genus, and species from the theologians to serve him as systematic tools.[2] As we have already seen, the term *race* was first introduced into the literature of natural history by Buffon in 1749. But Buffon did not use the term in a classificatory sense; this was left to Blumenbach.

As used by Blumenbach the term "race" merely represented an extension of the Aristotelian conception of species, that is to say, it was a subdivision of a species. Like Buffon, Blumenbach recognized that all human beings belong to a single species, as did Linnaeus, and he considered it merely convenient to distinguish between certain geographically localized groups of man. Thus, when with Blumenbach, in the late eighteenth century, the term assumed a classificatory value, it was understood that that value was purely arbitrary and no more than a simple convenience. It had no other meaning than that.

The Aristotelian conception of species, the theological doctrine of special creation, and the natural history of the Age of Enlightenment, as represented particularly by Cuvier's brilliant conception of unity of type, namely, the idea that ani-

1 Myrdal, *An American Dilemma: the Negro Problem and American Democracy*, p. 116.

2 Linnaeus, *Systema naturae*.

mals can be grouped and classified upon the basis of assemblages of structural characters which, more or less, they have in common, these three conceptions fitted together extremely well and together yielded the idea of the fixity of species. An idea which, in spite of every indication to the contrary in the years which followed, was gradually extended to the concept of "race."

The Darwinian contribution showed that species were not as fixed as was formerly believed and that under the action of natural selection one species might give rise to another; that all animal forms might change in this way. It is, however, important to remember that Darwin conceived of evolution as a process involving continuous materials, which, without the operation of natural selection, would remain unchanged. Hence, under the Darwinian conception of species it was still possible to think of species as relatively fixed and immutable, with the modification that under the slow action of natural selection they were capable of change. For the nineteenth-century anthropologist, therefore, it was possible to think of "race" or "races," not as Blumenbach did in the eighteenth century, as an arbitrary convenience in classification, but as Cuvier did at the beginning of the nineteenth century for all animals, as groups which could be classified upon the basis of the fact that they possessed an aggregate of common physical characters, and, as Darwin later postulated, as groups which varied only under conditions of natural selection, but which otherwise remained unchanged.

This is essentially a scholastic conception of species with the one fundamental difference that a species is considered to be no longer fixed and immutable. As far as the older anthropological conception of "race" is concerned, the anthropologist, unaware of the significance of the findings of modern genetics, still thinks of "race" as the scholastics thought of species, as a knowable fixed whole, the essence of which could be defined *per genus, propria, et differentia.*

In fact, the anthropologist has simply taken over a very crude eighteenth-century notion which was originally offered

as a general term with no more than an arbitrary value—a convenient aid to the memory in discussing various groups of mankind—and having erected a tremendous terminology and methodology about it, has deceived himself in the belief that he is dealing with an objective reality.[3]

The most recent illuminating reflection of a persisting anthropological viewpoint occurs in a charming book by a young student of anthropology. In explaining the object of her investigations, she writes: "The purpose of these anthropometric measurements is the establishment of various physical types. The more generalized characteristics of the inhabitants of any one locality can be determined, the resemblances to and differences from their near and remote neighbours, the ideal being to discover the various strains which are there combined. In anthropology there is as much information to be gathered from these physical measurements as from the study of social habits and customs." [4] This represents a fair statement of older anthropological viewpoint, "the purpose of these anthropometric measurements is the establishment of various physical types."

For more than a century anthropologists have been directing their attention principally toward the task of establishing criteria by means of which "races" of mankind might be defined. They have all taken completely for granted the one thing which required to be proved, namely, that the concept of "race" corresponds with a reality which can actually be measured and verified and descriptively set out so that it can be seen to be a fact.[5] In short, that the anthropological con-

[3] As Boas remarked, "we talk all the time glibly of races and nobody can give us a definite answer to the question what constitutes a race." Speaking of his earliest days as a physical anthropologist, Boas says: "When I turned to the consideration of racial problems I was shocked by the formalism of the work. Nobody had tried to answer the questions why certain measurements were taken, why they were considered significant, whether they were subject to other influences." Boas, "History and Science in Anthropology: a Reply," *American Anthropologist*, XXXVIII (1936), 140.

[4] Crockett, *The House in the Rain Forest*, p. 29.

[5] T. H. Huxley in his essay, published in 1865, "On the Methods and Results of Ethnology," (reprinted in *Man's Place in Nature*) refused to use the terms "stocks," "varieties," "races," or "species" in connection with man, "because

ception of "race" is true which states that in nature there exist groups of human beings comprised of individuals each of whom possess a certain aggregate of characters which individually and collectively serve to distinguish them from the individuals in all other groups.

Stated in plain English, this is the conception of "race" which most anthropologists have held and practically everyone else, except the geneticist, accepts. When, as in recent years, some anthropologists have admitted that the concept cannot be strictly applied in any systematic sense, they have thought to escape the consequences of such an admission by calling the term a "general" one and have proceeded to play the old game of blind man's bluff with a sublimity which is almost enviable. For it is not vouchsafed to everybody completely to appreciate the grandeur of the doctrine here implied. The feeling of dissatisfaction with which most anthropologists have viewed the many laborious attempts at classification of human groups has not, on the whole, succeeded in generating the unloyal suspicion that something is probably wrong somewhere. If there is a fault, it was generally supposed, it lies, not with the anthropologist, but with the material, with the human beings themselves who are the subject of classification, and who always vary so much that it is difficult to put them into the group where they were conceived properly to belong. This was definitely a nuisance, but, happily, one which could be overcome by the simple expedient of "averaging"—the principal occupation of the student of "race."

THE "RACE OMELETTE"

The process of averaging the characters of a given group, of knocking the individuals together, giving them a good stirring, and then serving the resulting omelette as a "race" is

each of these last well-known terms implies, on the part of its employer, a preconceived opinion touching one of those problems, the solution of which is the ultimate object of the science; and in regard to which therefore, ethnologists are especially bound to keep their minds open and their judgments freely balanced."

essentially the anthropological process of race-making. It may be good cooking, but it is not science, since it serves to confuse rather than to clarify. When an omelette is done, it has a fairly uniform character, though the ingredients which have entered into its making have been varied. So it is with the anthropological conception of "race." It is an omelette which corresponds to nothing in nature. An indigestible dish conjured into being by an anthropological chef from a number of ingredients which are extremely varied in character. The omelette called "race" has no existence outside the statistical frying pan in which it has been reduced by the heat of the anthropological imagination.

It is this omelette conception of "race" which is so meaningless—meaningless because it is inapplicable to anything real. When anthropologists begin to realize that the proper description of a group does not consist in the process of making an omelette of it, but in the description of the character of the variability of the elements entering into it—its ingredients—they will discover that the fault lies, not with the materials, but with the conceptual tool with which they have approached its study.

That many differences exist between various groups of human beings is obvious; but the older anthropological conception of these is erroneous, and the older anthropological approach to the study of their relationships is unscientific and pre-Mendelian. Taxonomic exercises in the classification of assemblages of phenotypical (external) characters will never succeed in elucidating the relationships of different groups of mankind to one another, for the simple reason that it is not assemblages of characters which undergo changes in the formation of the individual and the group, but the single units which determine those characters. One of the great persisting errors involved in the anthropological conception of "race" has been due to the steady refusal to recognize this fact. The fact is that it is not possible to classify the various groups of mankind by means of the characters which anthropologists have customarily used, because those characters do not behave as pre-

Mendelian anthropologists think they should behave, namely, as complexes of characters which are relatively fixed and are transmitted as complexes, but instead in a totally different manner, as the expressions of the many independent units, linked and unlinked, which have entered into their formation.

The parallel in the history of biology is very striking here and has been well illustrated by Dobzhansky, who writes: "Many studies on hybridization were made before Mendel, but they did not lead to the discovery of Mendel's laws. In retrospect, we see clearly where the mistake of Mendel's predecessors lay: they treated as units the complexes of characteristics of individuals, races, and species, and attempted to find rules governing the inheritance of such complexes. Mendel was first to understand that it was the inheritance of separate traits, and not complexes of traits, which had to be studied. Some of the modern students of racial variability consistently repeat the mistakes of Mendel's predecessors." [6]

The materials of evolution are not represented by continuous aggregates of characters, but by discontinuous packages of chemicals, each of which is more or less independent in its action and may be only partially responsible for the form of any character. These chemical packages are the genes, situated within the chromosomes, structures with which some anthropologists are still scarcely on terms of a bowing acquaintance. These genes retain both their independence and their individual character more or less indefinitely, although probably they are all inherently variable and, in time, may undergo mutation. For these reasons any conception of "race" which operates as if inheritance were a matter of transmitting gross aggregates of characters is both erroneous and meaningless. To quote Dobzhansky once more: "The difficulty . . . is that . . . the concept of race as a system of character averages logically implies a theory of continuous, rather than of particulate, germ plasm. Such a concept is obviously outmoded and incapable of producing much insight into the causative factors at work in human populations. Although

[6] Dobzhansky, *Genetics and the Origin of Species*, 2d ed., p. 78.

the genic basis of relatively few human traits is known, it seems that following up the distribution of these few traits could tell us more about the 'races' than a great abundance of measurements." [7]

GENE DISTRIBUTION

The principle agencies of evolutionary change in man are primarily gene variability and gene mutation. Evolutionary changes are brought about through the rearrangements in the combinations of genes in consequence of the operation of many secondary factors, physical and social, and changes in the character of the genes themselves. In order to appreciate the meaning of the variety presented by mankind today it is indispensably necessary to understand the manner in which these agencies work. Thus, in man it is practically certain that some forms of hair and skin color are due to mutation, while still other forms are due to various combinations of these mutant forms with one another, as also with nonmutant forms. The rate of mutation for different genes in man is unknown, though it has been calculated that the gene for normal clotting mutates, for example, to the gene for haemophilia in one out of every 50,000 individuals per generation. It is highly probable, for example, that such a mutation occurred in the person of Queen Victoria, a fact which in the long run may perhaps constitute her chief claim to fame.[8] The rate of mutation of the blood group genes, however, must be very low, and it is unlikely that such mutations have occurred since the apes and man set out upon their divergent evolutionary paths.[9] Mutation of skin-color genes is also very infrequent, while mutation of hair-form genes is not much more frequent.

If anthropologists are ever to understand how the different groups of mankind came to possess such characters as distinguish the more geographically isolated of them, and those of the less isolated, more recently mixed, and therefore less

[7] *Ibid.*, p. 359.

[8] Haldane, *Heredity and Politics*, p. 88.

[9] See Boyd, "Critique of Methods of Classifying Mankind," *Amer. J. Phys. Anthrop.*, XXIV (1940), 333–64.

distinguishable groups, it should be obvious that they must cease making omelettes of the very ingredients, the genes, which it should be our purpose to isolate and map. What must be studied are the frequencies with which such genes occur in different groups or populations. The gene frequency method for the study of the distribution of human genes is a very simple one and has now been available for some time,[10] as likewise, has been the method for the study of genetic linkage in man.[11] If, roughly speaking, one gene be assigned to every component of the human body, it should be fairly clear that as regards the structure of man we are dealing with many thousands of genes. If we consider the newer concepts, which recognize that the adult individual represents the end point in the interaction between all these genes, the complexities become even greater. The morphological characters which anthropologists have relied upon for their "racial" classifications have been very few indeed, involving a minute fraction of the great number of genes which it would actually be necessary to consider in attempting to make any real—that is to say, genetically analytic—classification of mankind.

To sum up, the indictment against the older anthropological conception of "race" is (1) that it is artificial, (2) that it does not correspond with the facts, (3) that it leads to confusion and the perpetuation of error, and finally, (4) that for all these reasons it is meaningless, or rather, more accurately, such meaning as it possesses is false. Based as it is on unexamined facts and unjustifiable generalizations, it were better that the term, being so weighed down with false meaning, were dropped altogether than that any attempt should be made to give it a new meaning.

If it be agreed that the human species is one and that it consists of a group of populations which, more or less, replace each other geographically or ecologically and of which the

10 For a clear exposition of the facts see Strandskov, "The Distribution of Human Genes," *Scientific Monthly*, LII (1941), 203–15, and "The Genetics of Human Populations," *American Naturalist*, LXXVI (1942), 156–64.

11 Finney, "The Detection of Linkage," *The Journal of Heredity*, XXXIII (1942), 156–60.

neighboring ones intergrade or hybridize wherever they are in contact, or more potentially capable of doing so,[12] then it should be obvious that the task of the student interested in the character of these populations must be to study the frequency distribution of the genes which characterize them—not entities which are purely imaginary.

Physical anthropologists must recognize that they have unwittingly played no small part in the creation of the myth of "race," which in our time has assumed so monstrous a form. I am glad to say that since the appearance of the first edition of the present volume a number of anthropologists have seen their responsibility clearly and are taking active steps to exorcise the monster and deliver the thought and conduct of mankind from its evil influence.[13] Dr. G. M. Morant, England's most distinguished physical anthropologist, in delivering the address on physical anthropology at the centenary meeting of the Royal Anthropological Institute, said: "It seems to me that the time has come when anthropologists must fully recognize fundamental changes in their treatment of the problem of racial classification. The idea that a race is a group of people separated from all others on account of the distinctive ancestry of its members, is implied whenever a racial label is used, but in fact we have no knowledge of the existence of such populations to-day or in any past time. Gradations between any regional groups distinguished, and an absence of clear-cut divisions, are the universal rule. Our methods have never been fully adapted to deal with this situation." [14]

[12] Mayr, "Speciation Phenomena in Birds," *Biological Symposia,* II (1941), 66, and *Systematics and the Origin of Species,* pp. 154 ff.

[13] For a very cogent criticism, by a cultural anthropologist, along similar lines, see the chapter on "race" in Linton, *The Study of Man,* pp. 22–45. See also Krogman, "The Concept of Race," in Linton (editor), *The Science of Man in the World Crisis,* pp. 38–62.

[14] Morant, "The Future of Physical Anthropology," *Man,* XLIV (1944), 17.

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THE GENETICAL THEORY OF "RACE"

As WE HAVE SEEN in the preceding chapter, the customary anthropological practice of describing the end effects of complex variations without in the least attempting to consider the nature of the conditions responsible for them can never lead to any understanding of their real meaning. In order to understand the end effects with which the physical anthropologist has been so much concerned it is necessary to investigate the causes producing them, and this can only be done by studying the conditions under which they come into being, for it should be obvious that it is the conditions *producing* the end effects which must be regarded as the efficient causes of them.

Comparing numerous series of metrical and nonmetrical characters relating to different varieties of man may provide us with some notion of their likenesses and differences and tell us something of the variability of some of their characters; this is necessary and important, but no amount of detailed description and comparison will ever tell us how such groups came to be as we now find them, unless a serious attempt be made to discover the causes operative in producing them.

Such causes are at work before our eyes at the present time. In this country and in many other parts of the world where different "racial" groups have met and interbred determinate sequences, if not the actual mechanism, of "racial" change may be studied. The discoveries of geneticists concerning the manner in which genetic changes are brought about in other organisms and what little is known of human genetics renders it perfectly clear that the genetic systems of all living things behave fundamentally according to the same laws. If this is true, it then becomes possible, for the first time in the history of man, to envisage the possibility of an evolution in genetical terms of the past stages through which man, as a variable spe-

cies, must have passed in order to attain his present variety of form and also, in the same terms, to account for that variety.

The principles involved in the genetic approach to the study of the evolution of the variety of mankind cannot be fully discussed here, because such a discussion would demand a treatise in itself. Here we have space only for a very condensed statement of the genetical theory of "race."

The conception of "race" here proposed is based upon the following fundamental postulates: (1) that the original ancestral species population was genetically relatively heterogeneous; (2) that by migration away from this original ancestral group, individual families became dispersed over the earth; (3) that some of the groups thus dispersed became geographically isolated from one another and remained so isolated for more or less considerable periods of time; (4) that upon all these isolated groups several of the following factors came into play as conditions leading to evolutionary change: (*a*) the genetic drift or inherent variability of the genotypic materials composing each individual member of the group; (*b*) physical change in the action of a gene associated, in a partial manner, with a particular character, that is, gene mutation.

Genetic drift describes the fact that, given a genetically heterogeneous or heterozygous group, spontaneous random variations in gene frequencies will, in the course of time, occur, so that such originally relatively homogeneous groups will come to exhibit certain differences from other isolate groups which started with the same genetic equipment.

Mutation defines the condition in which a particular gene undergoes a permanent change of some sort, and its action expresses itself in the appearance of a new form of an old character. Mutations have almost certainly occurred independently in different human isolate groups, at different times and at different rates, and have affected different characters. Thus, for example, in one part of a population mutant dominant genes leading to the development of kinky hair may have appeared and have ultimately become scattered throughout

the population, as among the Negroes. We cannot, however, make a similar assumption for all or many of the characters which distinguish the four divisions of man from one another. Skin color, for example, cannot be so simply explained, for the probabilities are high that even in early man there were already in existence various skin colors and also, incidentally, hair colors.[1] Selection has undoubtedly played an important part here.

Up to this point we have seen that it is possible to start with a genetically heterogeneous, but otherwise relatively homogeneous, population from which independent groups have migrated and become isolated from one another and that by random variation in gene frequencies and the change in the action of genes themselves—disregarding for the moment the operation of such factors as selection of various sorts—new genetic combinations of characters have appeared which, in so far as they differ from those which have appeared in other groups, define the differences existing between such groups. In brief, random variation in gene frequency and the action of mutant genes are the primary agencies responsible for the production of physical differences between human groups. In fact, these constitute the basic processes in the evolution of all animal forms. But there are also other factors involved which, though secondary in the sense that they act upon the primary factors and influence their operation, are not less important in their effects than the primary factors. Indeed, these secondary factors, ecological, natural, sexual and social selection, inbreeding, outbreeding, or hybridization, and so forth, have been unremitting in their action upon the primary factors, but the character of that action has been very variable. The action of these secondary factors does not require any discussion here (hybridization is discussed in Chapter VIII). I wish

[1] Among apes of the present day, for example, one encounters animals that are completely white skinned, others that are completely black or brown skinned; still others are mixed or differentially colored, thus the face and hands and feet may be black and the rest of the body white or brown. The hair on the crown of a gorilla's head may contain almost every color that is to be found among men today.

here to emphasize principally that in the character of the action of the two primary factors, genetic drift and gene mutation, we have the clear demonstration that the variation of all human groups is a natural process which is constantly proceeding. It is here being suggested that "race" is merely an expression of the process of genetic change within a definite ecologic area; that "race" is a dynamic, not a static, condition; and that it becomes static and classifiable only when a taxonomically minded anthropologist arbitrarily delimits the process of change at his own time level.

In short, the so-called "races" merely represent different kinds of temporary mixtures of genetic materials common to all mankind. As Shelley wrote,

> Man's yesterday may ne'er be like his morrow;
> Naught may endure but mutability.

Given a sufficient amount of time, all genes presumably mutate. The frequency with which various genes have undergone change or mutation in human groups is at present unknown, but when anthropologists address themselves to the task of solving the problem of gene variability in different human groups, important discoveries may be expected. The immediate task of the physical anthropologist interested in the origins of human variety should be to investigate the problem presented by that variety, not as a taxonomist, but as a geneticist, since the variety which is loosely called "race" is a process which can only be accurately described in terms of the frequencies with which the individual genes occur in groups representing adequate geographic isolates.

If "race" and "racial" variability can best be described in terms of gene frequencies, then among the most important tasks of the anthropologist must be to discover what roles the primary and secondary factors play in producing that variability.

The approach to the solution of this problem is twofold. First, through the analysis of the character of the variability itself in definitely localized groups and, second, through the

study of the effects of "race" mixture among living peoples. Such studies as those of Fischer, Herskovits, and Davenport and Steggerda have already shown what can be achieved by means of the genetic approach.[2] As Dobzhansky has pointed out, "the fundamental units of racial variability are populations and genes, not complexes of characters which connote in the popular mind a racial distinction." [3] It is with such complexes that physical anthropologists have been fruitlessly dealing for so long. And as Dobzhansky so cogently put it in a previously quoted passage which, however, cannot be too often repeated, the error of the pre-Mendelians lay in the fact that "they treated as units the complexes of characteristics of individuals, races, and species, and attempted to find rules governing the inheritance of such complexes. Mendel was first to understand that it was the inheritance of separate traits, and not of complexes of traits, which had to be studied. Some of the modern students of racial variability consistently repeat the mistakes of Mendel's predecessors." [4]

In man the process of "race" formation is genetically best understood in terms of the frequency with which certain genes become differentiated in different groups derived from an originally somewhat heterogeneous species population and subsequently undergo independent development. We have already seen that the mechanisms involved in differentiating a single collective genotype into several separate genotypes, and the subsequent development of a variety of phenotypes within these genotypes, are primarily genetic drift or gene variability and gene mutation, and secondarily, the action of such factors as environment, natural, social, and sexual selection, inbreeding, outbreeding, and the like.

Many of the physical differences existing between the living races of man probably originally represented the end effects of small gene mutations fitting harmoniously into gene sys-

[2] Fischer, *Die Rehobother Bastards und das Bastardierungsproblem beim Menschen;* Herskovits, *The American Negro* and *The Anthropometry of the American Negro;* Davenport and Steggerda, *Race Crossing in Jamaica.*

[3] Dobzhansky, *Genetics and the Origin of Species,* 2d ed., p. 78.

[4] *Ibid.*

tems which remain relatively unaltered. Judging from the nature of their likenesses and differences, and from the effects of intermixture the number of genes involved would appear to be relatively small in number, each being for the most part independent in its action.

Quite as important as the primary factors in the production of the genetic variety of mankind are the secondary factors, such as migration, social and sexual selection, inbreeding,[5] outbreeding, and the like. These processes are akin to those practiced in the production of domestic breeds of animals from wild types, in whom generic, specific, and racial characters which, under natural conditions, in the secular period of time concerned, would have remained stable, are rendered markedly unstable, as in our artificially produced varieties of cats, dogs, horses, and other domesticated animals.

The common definition of "race" is based upon an arbitrary and superficial selection of external characters. At its very best it may, in genetic terms, be redefined as a group of individuals of whom an appreciable majority, taken at a particular time level, is characterized by the possession of a certain number of genes phenotypically (that is, on the basis of certain visible characters) selected as marking "racial" boundaries between them and other groups of individuals of the same species population not characterized by so high a degree of frequency of these particular genes.

This is, perhaps, granting the common conception of "race"

[5] One form of inbreeding, namely, own mother's brother's daughter—own father's sister's son marriage, that is, cross-cousin marriage, is probably very ancient and is still very widespread. In this connection Buxton has observed that "herein may lie one of the explanations of the slight differences which appear in the physique of different groups of mankind. If two groups exist side by side, do not intermarry, but each practise within their own group some form of consanguineous marriage, provided that it be physical and not classificatory consanguinity, each will tend to become a pure strain, but according to the laws of chance each of these pure strains will tend to differ to a greater or lesser degree from the other. We shall thus, in time tend to get those differences in physique between neighbouring tribes which are often so puzzling to the physical anthropologist. Once the pure strains have become established, so long as outside blood is not introduced into the tribe, this difference will tend to be perpetuated." L. H. D. Buxton, "Cross Cousin Marriages; the Biological Significance," in Rattray, *Religion and Art in Ashanti,* p. 343.

too much credit for either significance or intelligibility, but it should be obvious that such a definition represents a rather fatuous kind of abstraction, a form of extrapolation for which there can be little place in scientific thought. What, for instance, does "an appreciable majority" refer to? What are the characters which are to be exhibited by this "appreciable majority?" And upon what grounds are such characters to be considered as significantly defining a "race?" As Dobzhansky points out, "the geographical distributions of the separate genes composing a racial difference are very frequently independent." [6] Thus, blood group distributions are independent of skin color or cephalic index distributions, and so forth. What aggregation, then, of gene likenesses and differences constitutes a "race" or ethnic group?

The answer to this question awaits further research. Meanwhile, we may venture, in a very tentative manner, a definition of an ethnic group here. An ethnic group represents part of a species population in process of undergoing genetic differentiation; it is a group of individuals capable of hybridizing and intergrading with other such ethnic groups to produce further genetic recombination and differentiation.

In an expanded form this definition may be written as follows: An ethnic group represents one of a number of populations comprising the single species Homo sapiens which individually maintain their differences, physical and cultural, by means of isolating mechanisms such as geographic and social barriers. These differences will vary as the power of the geographic and social barriers, acting upon the original genetic differences, vary. Where these barriers are of low power, neighboring groups will intergrade or hybridize with one another. Where these barriers are of high power, such ethnic groups will tend to remain distinct or to replace each other geographically or ecologically.[7]

[6] Dobzhansky, *Genetics and the Origin of Species*, 2d ed., p. 77.

[7] The conception of an ethnic group was clearly stated as early as 1844 by Alexander von Humboldt; he writes: "The distribution of mankind is . . . only a distribution into *varieties*, which are commonly designated by the somewhat indefinite term *races*. As in the vegetable kingdom, and in the nat-

An example will make this definition clear. When American Negroes marry and have a family, their children more closely resemble other American Negroes, as well as Negroes elsewhere in the world, than they do American or other whites. This merely means that the offspring have drawn their genes from a local group in the population in which certain genes, say for skin color, were present that were not present in other local groups of the American population. Now, the manner in which such genes are distributed within a population such as ours is determined not so much by biological factors as by social factors. This may be illustrated by means of a homely example. If Negroes were freely permitted to marry whites, the physical differences between Negroes and whites would eventually be completely eliminated through the more or less equal distribution of their genes throughout the population. That this has not occurred to any large extent is due principally to the erection of social barriers against such "miscegenation." Such social barriers tend to keep the stocks with white and black genes separate. In this way such barriers act as isolating factors akin to natural geographic isolating factors, which have the same effect in maintaining the homogeneity of genetic characters within the isolated group.

Is it not clear, then, that the frequency distributions of certain genes within a population—no matter how those genes have arisen—which serve to distinguish one ethnic group from another for the most part represent the effects of the action of different isolating agents upon a common stock of genetic materials? Such agencies as natural, social, and sexual selection result in different frequency distributions of genes

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ural history of birds and fishes, a classification into many small families is based on a surer foundation than where large sections are separated into a few but large divisions; so it also appears to me, that in the determination of races a preference should be given to the establishment of small families or nations. Whether we adopt the old classification of my master, Blumenbach . . . or that of Prichard . . . we fail to recognize any typical sharpness of definition, or any general or well established principle, in the division of these groups. The extremes of form and colour are certainly separated, but without regard to the races, which cannot be included in any of these classes." A. von Humboldt, *Cosmos,* pp. 365–66.

among local groups and populations. Such, from the standpoint of the naturalist, is an ethnic group.

It will be observed that such a definition emphasizes the fact that so-called "racial" differences simply represent more or less temporary expressions of variations in the relative frequencies of genes in different parts of the species population and rejects altogether the all-or-none conception of "race" as a static immutable process of fixed differences. It denies the unwarranted assumption that there exist any hard and fast genetic boundaries between any groups of mankind and asserts the common genetic unity of all groups. Such a conception of "race" cuts across all national, linguistic, religious, and cultural boundaries and thus asserts their essential independence of genetic factors.

4

THE BIOLOGICAL FACTS

CONCERNING the origin of the living varieties of man we can say little more than that there is every reason to believe that a single stock gave rise to all of them. All varieties of man belong to the same species and have the same remote ancestry. This is a conclusion to which all the relevant evidence of comparative anatomy, palaeontology, serology, and genetics points. On genetic grounds alone it is virtually impossible to conceive of the varieties of man as having originated separately as distinct lines from different anthropoid ancestors. Genetically the chances against such a process ever having occurred are, in terms of probability, of such an order as to render that suggestion inadmissible.

Up to the present time no satisfactory classification of the varieties of mankind has been devised, and it is greatly to be doubted whether such classification is possible in any manner resembling the procedure of the purely botanical or zoölogical taxonomist. The reason for this is that all human varieties are very much more mixed than are plant or animal forms, hence there is a greater dispersion or scattering of characters, which has the effect of producing a considerable amount of intergrading between ethnic groups or varieties. The more or less great variability of all ethnic groups constitutes a genetic proof of their mixed character. From the biological standpoint the physical differences which exist between the varieties of mankind are so insignificant that when properly evaluated they can only be described in terms of a particular expression of an assortment of genes which are common to mankind as a whole. At most, human varieties probably differ from one another only in the distribution of a comparatively small number of genes. This one may say very much more definitely of man than one could say it of the differences exhibited by any of our domesticated varieties of cats, dogs, or

horses. There are numerous varieties of cats, dogs, and horses, many of which represent highly selected strains of animals which have been developed as more or less homogeneous strains and domesticated by man. Man, too, is a domesticated, a self-domesticated, animal, but unlike our domestic animals man exhibits varieties that are very much mixed and far from representing homogeneous breeds. The range of variation in all human varieties for most characters is very much more considerable than that which is exhibited by any group of animals belonging to a comparatively homogeneous breed. All the evidence indicates that the differences between the so-called "races" of man merely represent a random combination of variations derived from a common source, which, by inbreeding in isolated groups, have become scattered and more or less stabilized and hereditary in a large number of the members of such groups. Furthermore, the evidence suggests that such selection of variations as has occurred in different groups has been primarily restricted to physical characters. There is no evidence among the ethnic groups of mankind that any process of mental selection has ever been operative which has acted differentially upon mankind to produce different types of minds. The conception of selection for mental qualities seems to be a peculiarly modern one, adapted to modern prejudices.

Man has bred dogs for certain temperamental qualities useful in the hunt for many centuries—dogs like the Irish setter, for example. The Irish setter is always red-haired, but his red hair has no connection with his temperamental qualities. The Irish setter has the same kind of temperament as the English setter, but the hair color of the English setter is white and black. The only difference between the white, the black, the white and black, and the red setters is in their coat color; there is no difference at all in their mental or temperamental qualities. No one ever asks whether there are mental and temperamental differences between white, black, or brown horses —such a question would seem rather silly; but when it comes to man, the prejudice of anyone who has ever made the statement that skin color is associated with mental capacity is ac-

cepted as gospel. For such an assumption there is about as much justification as there would be for the assumption that there exist substantial mental differences between the different color varieties of setters. We know this to be false concerning setters only because we have paid more unprejudiced attention to the mental qualities of dogs than we have to those of human beings. But those of us who have paid some attention to the character and form of the minds of peoples belonging to different varieties of mankind and to different cultures have satisfied ourselves by every scientific means at our disposal that significantly or innately determined mental differences between the varieties of mankind have thus far not been demonstrable. It may be that some such differences do exist, but if they do, they have so far successfully eluded every attempt to prove their existence. There is every reason to believe that such mental differences as we observe to exist between the different varieties of man are due principally to factors of a cultural nature and are in no demonstrably significant manner inseparably related to biological factors. We shall presently refer to the nature of the mental differences which are alleged to exist between different ethnic groups.

Whether the varieties of mankind have a common origin or not is strictly a matter which need concern us little, in view of the fact that structurally, in spite of superficial differences, they are all now so very much alike. No one physical trait is limited to any particular variety, although different varieties show higher frequencies in the possession of certain physical traits than others. Such differences in the distribution of the frequencies of physical characters in different human groups simply mean that at some time in the past individuals of different heredity interbred, and in isolation continued to do so, with the result that a new combination of characters became more or less evenly distributed throughout the group. In this way a new human variety or ethnic group was produced. The fact that all human races and ethnic groups are generated in this way is suggested not only by what we know of human crosses today—particularly the American Negro—and the be-

havior of other animal groups but also by the presence in all human beings of a large number of the characters most frequently found in any one group. The fundamental genetic kinship of all the ethnic groups of mankind would, therefore, seem to be clear.

With respect to the nature of those physical characters in the frequency distribution of which varieties differ from one another, it needs to be said that not one can be classified as either "higher" or "lower" in the "scale" of development. Every normal physical character must be appraised as equally valuable for the respective functions which it is called upon to perform. Such a character, for example, as black skin probably represents a variety of the original skin color of man. Whatever its origin, a black skin is undoubtedly a character of adaptive value, since it enables the individual to withstand the dangerous actinic rays of the sun. Hence, for groups living in areas of intense sunlight a black skin would, in terms of natural selection, in general be superior to a white skin.

By definition all members of the human species belong to the same classificatory and evolutionary rank, and the varieties of the human species, for the most part, merely represent the expression of successful attempts at adaptation to the environment or habitat in which they have been segregated. It is not altogether an accident that we find dark skins associated with regions of high temperatures and intense sunlight and light skins associated with cooler climates and moderate degrees of sunlight. In this same connection, compare the habitat of the white bear with that of the black or the brown bear; also, the frequency of black insects in deserts; Gloger's rule—melanin pigmentation in mammals and birds increases in warm and humid and lighter pigmentation in arid countries. Lukin finds that darkly pigmented races of insects are found in countries with humid and lightly pigmented races in countries with arid climates.[1]

Black skin appears to represent a character of adaptive value which in some groups followed upon the loss of the

[1] Dobzhansky, "Rules of Geographic Variation," *Science*, XCIX (1944), 127–28.

body-covering of hair. Thus, most apes and monkeys which possess an abundant hairy coat have *white* skin beneath the hair. It may, therefore, be assumed that the skin of early man was probably white; but the opposite assumption may be equally true, that is, some groups of the earliest men may have been black. In that case we would have to say, disregarding for the moment all other considerations, that white-skinned peoples have a lesser amount of pigment in their skin merely because the shift from the birthplace of their ancestors, which there is good reason to believe was either eastern Asia or Africa, to the cooler regions of Europe gradually resulted in a decrease in the amount of pigment in their skin, so that in the course of time, by means of selection of genes for low pigmentation, this has become considerably reduced.

To the present day, exposure to the intense sunlight will bring about the production of an increased amount of pigment in many whites, so that depending upon the degree of exposure the skin may turn dark—even black. This latter phenomenon will occur more readily in brunets than in blonds, simply because brunets possess a great amount of the substances required for the production of pigment, whereas blonds possess a much lower proportion of these substances.[2]

It should be obvious that black and white skins are, in their own ways, characters of physiological importance for the survival of the individual. In hot climates those individuals would be most favored who possessed skins sufficiently dark to cut off the dangerous actinic rays of the sun. In cool climates, where the rays of the sun are not so intense and the body requires a certain amount of sunlight in order to function properly, those individuals would be at an advantage—that is to say, over a considerable period of time—who were characterized by a lesser amount of pigment in the skin.

Albinos, individuals whose skin tissues are completely de-

[2] Edwards and Duntley, "The Pigments and Color of Living Skin," *American Journal of Anatomy*, LXV (1939), 1–33. The darkening of white skin under sunlight has, of course, no effect on the genes for white skin. Any permanent change in skin color would have to come by selection of genes for more pigmentation.

void of any pigment, suffer intensely when exposed to sunlight. Their pigmentless tissues are incapable of taking care of the sun's rays; in other words, they have no adaptive mechanism to protect them from the rays of the sun. In so far as they lack such a mechanism they are biologically unadapted to meet efficiently the demands of their environment and to that extent they are physically inferior to those of their fellows who are so adapted. But there is no evidence of any associated mental inferiority in such cases. The Negro is much better adapted to meet the demands of the conditions of intense sunlight to which his ancestors were born than the white man is,[8] just as the white man is better adapted to meet the rigors of the cooler climates of his adopted homelands. Is the one therefore superior or inferior to the other? Is the white man superior to the Negro because he has lost the greater part of his pigment, because biologically his organism has not required its presence under the conditions in which he has lived? And is the Negro superior (or inferior) because he is the descendant of ancestors who were able to survive by virtue of the selective value of their darkly pigmented skins? Clearly, there can be no question here of either inferiority or superiority. Both the Negro and the white man have survived because they and their ancestors were possessed of characters of adaptive value which, under the respective conditions of their differing environments, enabled them to survive. Characters of adaptive value, whatever form they may take, are always desirable, because from the standpoint of the organism and of the group they enable it to survive under the unremitting action of the processes of natural selection.

Is there any sense, then, in condemning a person because of the color of his skin, that self-same color which enabled the ancestral group that gave him birth to survive the rigors of this world? Of course there is none, and there can be none from any possible point of view. The same is true of hair and eye color.

But, as our racists point out, it is not only the color of the

[8] Lewis, *The Biology of the Negro*, pp. 94–96.

skin which counts; what of the Negro's kinky hair, thick lips, lack of general body hair, and so forth? These, surely, are all marks of inferiority? We may well ask: "Marks of inferiority in what sense? In the cultural or in the biological sense?" If the statement is made from the cultural point of view there can be no argument, for what a community or person considers culturally satisfying in such connections is purely an arbitrary matter of taste, and concerning taste it is notorious that there can be no dispute. Even Negroes when educated in Western cultures, as in North America, owing to the cultural norms which are everywhere set before them as standards, frequently come to consider that lank hair and white skin are to be preferred to black skin and kinky hair.[4] But if the statement is made in the biological sense as meaning that such Negroid physical traits are marks of biological inferiority, then it can be demonstrated that such a statement stands in complete contradiction to the facts.

The three characters in question, namely, kinky hair, thick lips, and general lack of body hair, are *not* marks of inferiority, but are very definitely, in the biological sense, examples of characters which have progressed farther in development than have the same physical structures in whites. In these very characters the Negro is from the evolutionary standpoint more advanced than the white, that is, if we take as our criterion of advancement the fact of being furthest removed from such conditions as are exhibited by the existing anthropoid apes, such as the gorilla and the chimpanzee. If some of our racists would take the trouble to visit their local zoo and for a moment would drop their air of superiority and take a dispassionate look at either one of these apes, they would find that the hair of these creatures is lank, that their lips are thin, and that their bodies are profusely covered with hair. In these characters the white man stands nearer to the apes than does the Negro. Is the white man, then, for this reason, to be judged inferior to the Negro? Surely not.

[4] For the preferences of Negroes in these and other respects see Brenman, "Urban Lower-Class Negro Girls," *Psychiatry*, VI (1943), 311–12.

We do not know why the Negro's head hair, body hair, and lips have developed as they have or why whites have more nearly retained the primitive condition of these characters, but we can be certain that biologically there is a very good functional reason responsible in both cases which in the system of values involved in biological judgments must be appraised as equally valuable for the respective functions which each is called upon to perform.

It has been shown that the broad nose of the Negro is adapted to meet the requirements of air breathed at relatively high temperatures, whereas the comparatively long, narrow nose of the white is adapted to breathing air at relatively low temperatures.[5] From the standpoint of aesthetics, a much stronger case could be made out for the Negro's nose than for that of the white. The peninsula of bone, cartilage, and soft tissues which jut out from the face of the white, with its stretched skin, which becomes so shiny as soon as the sweat begins to break through its enlarged pores, is really something of an atrocity. At least, any ape would think so. Let us try to imagine for a moment such an outgrowth from the middle of one's forehead instead of from the middle of one's face. In such a case, we would regard this structure, from our present standpoint, as an unsightly abnormality; and when a nose is unusually long, "pendulous" (as Cyrano de Bergerac put it), like an elephant's trunk, we tend to consider it unsightly. We have all grown used to our noses and take them very much for granted, but

> He is foolish who supposes
> That one can argue about noses.

All that one can say is that biologically the form of the Negro nose and the form of the white nose are each in their own way adapted to perform the functions which originally called them into existence. That being so, there can again be no question of either superiority or inferiority. Whether such

[5] Thomson and Buxton, "Man's Nasal Index in Relation to Certain Climatic Conditions," *J. Royal Anthrop. Institute*, LIII (1923), 92–122.

characters are due to adaptation, to natural selection, to social selection or to a combination of such factors is uncertain. What is certain is that such characters do enable individuals possessing them to meet the demands which their environments have made upon them and upon their ancestors. They have survival value. And this may be said for all the normal characters of all varieties of man.

There is one character of the human body which has been cited more frequently than any other as a "proof" of the inferiority of the Negro as compared with the white man. This is the size of the brain. The size of the brain is usually estimated from the capacity of the skull in terms of cubic centimeters. The material available upon which to base a discussion of the value of the size of the brain as related to mental capacity is far from satisfactory. We do not possess sufficient series of thoroughly controlled measurements on numerically adequate samples taken upon the brains or skulls of different human groups. The material that is available is of such a nature that it is possible for anyone who sets out with the intention of proving a particular case to prove it in precisely the terms he wishes.[6] But upon the basis of the available facts the scientist can come to only one conclusion and that is that since there is no demonstrable difference in the structure, gross or microscopic, of the brains of the members of different ethnic groups and since the variability in the size of the brain is such that there is no demonstrable relationship between cultural and intellectual status and brain size, there is therefore no significance to be attached to brain size as a mark of cultural or intellectual development. Now let us briefly consider the facts.

The cranial capacity of a number of palaeolithic Neanderthal men was, on the average, 1,625 c.c. What an extraordinary situation! Primitive Neanderthal man, who lived more than 50,000 years ago, had a larger brain than the average white man of today. Strange that this elementary fact has been

[6] For an excellent discussion of this subject see Lewis, *The Biology of the Negro*, pp. 77–81.

so consistently overlooked. Are we to assume, then, that these Neanderthal men were culturally and intellectually superior to the average modern white man? The Negro has an average cranial capacity of 1400 c.c., 50 c.c. less than the white, whereas the modern white has a cranial capacity which is lower than that of these Neanderthal men by 200 c.c. Are we to draw the conclusion from these facts, then, that the modern white is intellectually as much inferior to Neanderthal man as the Negro is to the white? We believe not.

We know that Neanderthal man was hardly as highly developed culturally as the modern white or Negro. But that he possessed the same capacities for cultural and intellectual development as the modern white or Negro seems highly probable. Neanderthal man was neither inferior nor superior to modern man because of his large brain—he was inferior culturally to modern man for the simple reason that the opportunities for cultural development which were open to him were strictly limited. His brain had nothing whatever to do with the comparatively undeveloped state of his culture, just as the brain of the vast majority of modern white men has little to do with the state of development of the Western world today. The brain is essentially the organ which coördinates nervous activities, and to a very large extent it performs that coördination according to the educative pattern which is offered to it. That pattern is always culturally determined and conditioned. Therefore, it depends to a very considerable extent upon the sort of cultural experience which an individual has been exposed to and caused to coördinate within his nervous system, whether he is capable of functioning at the necessary level or not.

The material bases of those structures which are eventually organized to function as mind are to a large extent inherited precisely as are all other structures of the body. This is an assumption, but it seems a perfectly legitimate one to make. The qualification "to a large extent" is introduced for the reason that in man the nervous system continues to develop long after birth and is therefore appreciably influenced by the

experience of the individual.[7] There is every reason to believe, as Edinger has pointed out, "that in certain parts of the nervous mechanism new connections can always be established through education." [8] And as Ranson put it, "the neurons which make up the nervous system of an adult man are therefore arranged in a system the larger outlines of which follow an hereditary pattern, but many of the details of which have been shaped by the experiences of the individual." [9] It is evident that experience must play a considerable role in the development of the structure and functioning relations of the nervous system, and it is also clear that that aspect of the functioning of the body or nervous system which we know as *mind* is dependent upon the interaction of several factors; these are, primarily: the inherited, *incompletely developed,* structure of the nervous system; and the character of the *external developing* influences.

There can be no doubt that the material bases of mind are inherited in much the same manner as are the other structures of the body. While the organization of the structures of the body is appreciably influenced by external factors, the resulting effects appear to be incomparably fewer and less complex than are those which are capable of being produced through the organization of those nervous structures which function as mind.[10]

Now, while it is possible—though it has never been demonstrated—that in different ethnic groups the nervous system differs in some of its structural characters, it is certain that if such differences exist, they are of the most insignificant kind. The measurable mental characters of different human groups strongly suggest that there are between such groups few, if any, mental differences which can be attributed to the charac-

[7] Kennard and Fulton, "Age and Reorganization of Central Nervous System," *Journal of the Mount Sinai Hospital,* IX (1942), 594–606.

[8] Edinger, *Vorlesungen über den Bau der nervösen Zentralorgane des Menschen und der Tiere.*

[9] Ranson, *The Anatomy of the Nervous System,* 7th ed. p. 41.

[10] It should be clearly understood that mind is merely one form of the functioning body and that the "body-mind" dichotomy is a purely arbitrary and unreal one.

ters of the nervous system alone. Furthermore, the mental differences which exist between human groups would appear to be much less considerable than those found to exist between individuals of the same group. In the light of our present knowledge, the evidence shows that within the limits of the normal, brain weight, cranial capacity, head size, or the gross structure and form of the brain bear no relation whatever to the characters of the mind, as between individuals of the same or different ethnic groups.[11] As Professor C. Judson Herrick has remarked, "mental capacity cannot be measured in avoirdupois ounces on the scales." Nor is there necessarily any association between certain ethnic group characters and certain kinds of mentality. Since mental functions are so largely dependent upon experience, upon cultural conditions, it is impossible to make any inferences as to the equivalence or nonequivalence of mental potentialities as between ethnic groups or peoples among whom the cultural conditions are not strictly comparable. In short, no statement concerning the mentality of an individual or a group is of any value unless it is accompanied by a specification of the conditions of the cultural environment in which that mentality has developed. No discussion of "racial" mental characters can be countenanced which neglects full consideration of the associated cultural variables. For it is evident that it is precisely these cultural variables that play the most significant part in producing mental differences between groups. As I have already indicated, it is more than probable that genetically deter-

[11] On these matters see: Pearson, "Relationship of Intelligence to Size and Shape of the Head and Other Mental and Physical Characters," *Biometrika*, V (1906), 105–46; Pearl, "On the Correlation between Intelligence and the Size of the Head," *J. Comp. Neur. and Psychol.*, XVI (1906), 189–99; Murdock and Sullivan, "A Contribution to the Study of Mental and Physical Measurements in Normal Children," *Amer. Physical Education Review*, XXVIII (1923), 209–15, 278–88, 328; Reid and Mulligan, "Relation of Cranial Capacity to Intelligence," *J. Royal Anthrop. Inst.*, LIII (1923), 322–32; Paterson, *Physique and Intellect*, 1930; Bonin, "On the Size of Man's Brain, as Indicated by Skull Capacity," *J. Comp. Neurol.*, LIX (1934), 1–28; Pickering, "Correlation of Brain and Head Measurements and Relation of Brain Shape and Size of the Head." *Amer. J. Physical Anthrop.*, XV (1931), 1–52; Levin, "Racial and 'Inferiority' Characters in the Human Brain," *Amer. J. Physical Anthrop.*, XXII (1937), 345–80.

mined mental differences do exist between individuals of the same and of different ethnic groups, but there is absolutely no evidence that significant mental differences which may be determined by the genetic characters of the nervous system exist between any two ethnic groups. As we have already said, apparently it is principally, if not entirely, due to differences in cultural experience that individuals and groups differ from one another culturally, and it is for this reason that, where the cultural experience has appreciably differed, cultural achievement is an exceedingly poor measure of the mental value, genetically speaking, of an individual or of a group. For all practical purposes, therefore, and until evidence to the contrary shall be forthcoming, we can safely take cultural achievement to represent the expression chiefly of cultural experience, not of biological potentiality.

Professor Otto Klineberg, our leading authority in the field of racial and ethnic psychology, after considering the evidence from every standpoint, offers the following important conclusion: "We may state," he writes, "with some degree of assurance that in all probability the range of inherited capacities in two different ethnic groups is just about identical." [12]

The environmental plasticity of mental characters is so great that when the evidence is all in it will almost certainly show that the average differences between ethnic groups will be smaller than the amplitude of the differences to be found within each of the ethnic groups themselves.

The brain does not secrete cultural or intellectual power in the same way that the liver secretes bile. One is not born with the ability to think brilliantly. Such an ability can be brought about only by exposure of the brain and nervous system to, and education in, the proper conditions.

When Julius Caesar landed upon the shores of Britain in A. D. 52 he found the Britons at an Iron Age level of cultural development. Within one hundred years after the landing of Caesar these selfsame savage Britons were well on the way

[12] Klineberg, "Mental Testing of Racial and National Groups," in *Scientific Aspects of the Race Problem*, p. 284.

toward the development of a civilization culminating in that great cultural efflorescence which has been called the Greece of the modern world. Had Caesar not opened up to the Britons the opportunities for cultural development when he did, the development of the Britons would have been greatly delayed, and they might even have been wiped out altogether by invading hordes. At the time when Caesar set foot in Britain the African Negro kingdoms and their peoples were from the cultural standpoint in an incomparably more advanced state of development than the Britons, upon whom they might well have looked as a "primitive" people. Africa had long been in contact with peoples who had acted upon them as so many cultural fertilizing agents. The Britons had been isolated from the main course of such contacts until the time of Caesar, but as soon as he made such contacts available to them development followed with great rapidity.

Were the brains of the Britons up to the time of Caesar's arrival made of such inferior stuff that they could only assume efficient qualities by the injection of new genes? Clearly, genes and brain had nothing to do with the matter; on the other hand, cultural stimulation had everything to do with the development which followed upon the Roman conquest.

The English are today the most notoriously unmusical people of our age. Yet in Elizabethan times they were the most musical people in Europe. What has happened? Has the "musical part" of the English brain atrophied? Of course not. The cultural and economic development of the English has simply led in a direction away from such interests to other pursuits. Brain has nothing to do with the matter; culture everything.

In short, it is culture which makes "brains"; not brains culture. If this were not so, then the Kaffirs and Amaxosa of Africa, whc have few cultural opportunities but more brains by size than whites (Kaffirs 1,540 c.c. and Amaxosa 1,570 c.c.) would be culturally and intellectually superior to whites, as would the Japanese, 1,485 c.c.; the Eskimos, 1,535 c.c.; and the Polynesians, 1,500 c.c. If we are to hold that the Negro is

mentally inferior to the white because his brain has a volume of 50 c.c. less than that of the white, then by the same token we must hold that Kaffirs, Amaxosa, Japanese, and many other peoples are superior to whites. This we have reason to believe is untrue. There is no evidence that any people is mentally either superior or inferior to any other people in any way whatever. All that we know is that there exist considerable cultural differences between peoples and that these cultural differences are readily to be explained upon purely historical grounds, not upon any biological ones.

Differences in brain size have about as much relation to intelligence and cultural achievement as differences in body size; that is to say, within the limits of normal variation absolutely none, either between groups of individuals or between individuals of the same group. In short, the concept of "race" which holds that the physical differences between peoples are reflections of underlying significant mental differences is a concept which, on the existing evidence, cannot be scientifically substantiated. It is a myth and a delusion.

The average person in our society observes that certain other persons belonging to different ethnic groups possess physical and mental traits which differ from his own. He concludes that these physical and mental traits are somehow linked together, that these traits are inborn, and that they are immutable.[18] Vague notions about a unilinear evolution "from monkey to man" encourage him to believe that such "races" are "lower" in the "scale" of evolution than is the group to which he belongs. From some such starting point as *Pithecanthropus erectus* he envisages a continuous progression upward, culminating in the development of his own "race" or group. Between *Pithecanthropus* and himself stand, in an intermediate position, all the other peoples of mankind. "Race" is a very definite entity to him, and all the intellectual

[18] "We are apt to construct ideal local types which are based on our everyday experience, abstracted from a combination of forms that are most frequently seen in a given locality, and we forget that there are numerous individuals for whom this description does not hold true." Boas, "Race and Progress," *Science,* LXXIV (1931), 1.

supports for his conception of it are ready at hand; newspapers, periodicals, books, the radio, publicists, politicians, and others all tell him much the same story. The significance of "race" for him emotionally is, as we shall soon see, of considerable importance. Therefore "race" exists. Such is the conception of "race" with which we have to reckon. We have seen that there are no scientific grounds for this conception.

5

"RACE" AND SOCIETY

No activity of man, whether it be the making of a book, the contraction of a muscle, the manufacture of a brick, the expression of an idea, or the writing of a work such as this, can be fully understood without a knowledge of the history of that activity in so far as it has been socially determined. For, obviously, any neglect to take into consideration the relations of the social framework can only lead to a defective understanding of such events. It should be clear that man develops in and through an environment that is social as well as physical. There is, perhaps, no subject and no event of which this is more conspicuously true than "race." I say "event," because in a very definite sense it would be preferable to speak of "race" as an "event" rather than as a word. Apart from the cells of a dead lexicographer's brain or the taxonomist's judgment, "race" in reality hardly ever functions as a word, but almost always as an event. In our society—and it is within the universe of our society that I am speaking—"race" is not merely a word which one utters but also an event which one experiences. The word itself merely represents a series of sounds which usually serve as a stimulus to set in motion a host of feelings and thoughts which, together, form an emotional experience; this, for most people, is what "race" is.[1] It seems to be of the greatest importance that this fact be clearly understood, and in this chapter an attempt will be made, among other things, to inquire into the development of those psychological factors which tend to make this event possible; that such psychological factors exist is indisputably clear, but these factors are not as well known as they deserve to be.

1 For an interesting discussion of the meaning of the word along these lines see Hayakawa, "Race and Words," *Common Sense*, XII (1943), 231–35.

"Race," in our society, is not a term which clearly and dispassionately defines certain real conditions which can be demonstrated to exist, but, as I have already said, the word acts more as a stimulus which touches off a series of emotional changes that usually bear as much relation to the facts as bees do to bonnets. Feelings and thoughts concerning such a concept as "race" are real enough, and so, it may be pointed out, are feelings and thoughts concerning the existence of unicorns, pixies, goblins, ghosts, satyrs, and Aryans. Endowing a feeling or a thought about something with a name and thereby imputing to that something a real existence is one of the oldest occupations of mankind. Man forces on nature the limitations of his own mind and identifies his view of reality with reality itself. Pixies, ghosts, satyrs, and Aryans, and the popular conception of "race" represent real enough notions, but they have their origin in erroneous interpretations of simple facts. Error, imagination, emotion, and rationalization are among the chief components of these notions. Facts, it should always be remembered, do *not* speak for themselves, but always through an interpreter. The word "fact" (*facere*) originally meant a thing made; we still make our own "facts," but fail to realize how much of ourselves we put into them.

It is not my purpose here to show that concepts denoted by such terms as "ghost" or "race" do not, in the sense in which they are commonly used and understood, correspond to anything scientifically demonstrable as having a real existence. Madame de Staël once remarked, "I do not believe in ghosts, but I am afraid of them." Intellectually convinced of the nonexistence of ghosts, Madame de Staël nonetheless reacted emotionally to the notion of ghosts for all the world as if they had a real existence. Most of us are familiar with this kind of reaction, and it is evident that in her early childhood Madame de Staël must have been emotionally conditioned in relation to the idea of the existence of ghosts to such an extent that as an adult she was quite unable to throw off the effects of that conditioning. This is what occurs in the case of most human beings with regard to "race." As Mussolini put it in his pre-

racist days, "race is a feeling, not a reality." [2] There can be little doubt of the fact that in many parts of the world most children are early emotionally conditioned to a belief in the existence of "race" differences.[3] In many parts of Europe, for example, where the larger number of troubles of State and person have traditionally been attributed to the Jews, such attributions can hardly have failed to escape the attention of most children. Indeed, they usually become aware very early that hostility toward Jews is a socially sanctioned, even required, form of behavior. Such children would grow up to accept the existence of imputed "race" differences as real and would act upon such beliefs almost automatically. But just as Madame de Staël became intellectually convinced that ghosts do not exist in spite of the acknowledged strength of the emotion attached to the idea, so, too, it is quite possible to produce an intellectual appreciation of the nature of their error among those who have been emotionally conditioned to accept the mythology of "race" as real. Indeed, nearly all of us have been so emotionally conditioned, and many of us have been more or less able to emancipate ourselves from the effects of such conditioning by becoming acquainted with the facts relating to these matters. Hence, one of the first requirements necessary for the production in the individual of an intelligent understanding of "race" problems must be the existence of a readily available body of scientific facts relating to every aspect of the "race" problem for use in the education or reëducation of the individual. Moreover, these facts must be used, and they must be made available in a form for use. Science and knowledge are meaningless unless they can be applied in a practical way to increase human happiness.[4] The dispassionate and scientific collection and analysis of facts is of the first importance, but the end of such activities should not rest with their publication in learned journals. The ultimate purpose of these scientific activities must be recognized as having been

[2] Mussolini, quoted by René Fulop-Miller, *Leaders, Dreamers and Rebels*, p. 422.

[3] On this subject see Lasker, *Race Attitudes in Children.*

[4] See Montagu, *How to Find Happiness and Keep It.*

defeated unless the most pertinent results are disseminated in such a manner as to increase the understanding of these matters in every human being.

I am not among those who consider that all who at present appear to be hopelessly confused upon the subject of "race" are beyond redemption. This seems to be an altogether gratuitous assumption. I believe that methods can be developed by means of which many persons who now harbor myths and delusions concerning "race" may be reached and redeemed. Through the press, periodicals, popular lectures, books, the film, the radio, the Church, and many similar agencies millions of misguided individuals can have the truth made available to them.

But far more important than these is the growing generation. It is through the lower and upper grade schools that the most significant work can be done in clarifying the minds of individuals concerning the facts relating to the varieties of man and in educating them in the proper mental attitudes.[5] Let us teach geography, but instead of presenting the subject in the usual arid manner let us humanize its teaching and furnish its field with the living peoples who inhabit the earth. Let us teach our children what we know about the peoples of the earth and about their respective values for one another and for civilization as a whole. Let us emphasize their likenesses and create interest in their differences, differences which enrich the common heritage of humanity and make the world the richly variegated experience it can be. Let us teach appreciation of the other person's point of view, the more so since if it is unlike our own it will require more sympathetic appreciation if it is to be understood. Relations between other human beings and ourselves form the most important of all the experiences and situations of our lives. Nevertheless, in our society human beings are permitted to enter into such relations without being equipped with the most elementary understanding of what they mean. No attempt is made to supply them with the facts relating to "race"

[5] See Appendix A; also Powdermaker, *Probing Our Prejudices.*

as demonstrated by science, on the contrary they are supplied with the kind of information which makes fertile ground for the development of "race" prejudices.[6]

Prejudices early acquired are notoriously difficult to eradicate. What must be done is to see to it that instead of such prejudices the growing personalities in our schools are taught the facts which anthropological science has made available. Our children must be taught that a certain form of nose or a certain skin color is in the physical scale of values neither better nor worse than any other; that the accents of different people, their manners, their facial appearance, their expression—like the clothes they wear—are not necessarily altogether biologically determined, that they are, indeed, to a much larger extent than is customarily supposed determined by cultural factors. They must be taught that there is nothing in such characters which is inherently objectionable. For it should be obvious that, though some of us may not be particularly attracted to people who exhibit a certain type of physiognomy, the cause of our dislike lies, not in their physiognomy, but in the values, the culturally determined ideas, in our own minds which have taught us to react in this way to the perception of such physiognomies. The causes of such dislikes must be looked for in the cultura background of one's intellectual being, not in the shape of the nose or the color of the skin of our neighbors. Physical differences are merely the pegs upon which culturally generated hostilities are made to hang, ending with the smug and empty conviction that a superior "race" is one that you look like and an inferior "race" is one that you don't look like. Here, then, is a most important field in which a great and valuable pioneer work remains to be done. Academic discussions will not carry us very far. We must be willing to roll up our sleeves and set to work on this immense, virtually untilled field.[7]

[6] See Baker, "Do We Teach Racial Intolerance?" *Historical Outlook,* XXIV (1933), 86–89.

[7] The type of teaching which can be carried out in the schools is very efficiently discussed and exemplified in the *Teaching Biologist,* IX (1939), 17–47. See Appendix A for an account of the kind of teaching most needed in our

Community projects for the teaching of the sympathetic understanding of other peoples and ethnic groups, such as that inaugurated in 1939 in Springfield, Massachusetts, which is being successfully carried on at the present time, have demonstrated how successfully "race" prejudice can be overcome. Treated like any other disease "race" prejudice can be prevented where it has not yet raised its head and eliminated where it has. Each community should make itself responsible for ridding itself of a disease which has for too long threatened its body politic, by seeing to it that the community as a whole thinks and acts, in its own best interests, in the light of the soundest modern knowledge and the best human practice.[8] Where there is a desire for just action it will be achieved, and where there is more than a hope of clarity, confusion will yield. In passing, it may be noted here that where clear thinking upon this subject might have been expected to be the rule —in the social sciences—the confusion is often quite as great as it is elsewhere.[9]

One of the first points to be grasped before much progress in this subject can be made is that as far as human beings and as far as society and social development are concerned "race" is not a biological problem at all; furthermore, that it does not even present any socially relevant biological problems. "Race" is a term for a problem which is created by special types of social conditions and by such types of special conditions alone. In terms of social relations so-called "race problems" are, in the modern world, essentially of the nature of caste problems.

"RACE" AND CASTE

We must recognize the fact that in our own society the "race problem" is essentially a problem of social relations and that it is, therefore, fundamentally a social problem.

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schools as successfully practiced in the community schools of Springfield, Massachusetts

[8] How this has been done at Springfield, Massachusetts, is set out in some detail in Appendix A.

[9] Berry, "The Concept of Race in Sociology Textbooks," *Social Forces,* XVIII (1940), 411–17.

In the social context of America, to take an example with which we are all familiar, what is usually referred to as a "race" or "racial" group, in reality constitutes a caste. Thus, Negroes, Jews, Japanese, and Indians are in actual practice treated by dominant white groups as if they were members of specific castes.

A caste may be defined as a specific, socially limited-status group. The function of the limiting factors of caste are, in effect, primarily to create barriers against sexual relations between members of the hegemonic caste and those of the "lower castes," and, secondarily, to regulate the social status, privileges, and social mobility of the members of the "lower castes."

A "class" differs from a "caste" in that a greater degree of social mobility is, in all respects, permitted between the members of the upper and the lower social classes than is permitted between castes. The caste is static, the class dynamic.

When we speak of the "race problem in America," what we really mean is the caste system and the problems which that caste system creates in America.[10] To recognize this fact is to effect a clarification and a change in conceptual approach to a problem upon which, perhaps more than any other in our time, clear thinking and accurate concepts are an urgent necessity.

It has recently been suggested that "the term race should be discarded entirely in the cultural reference, and the more appropriate term caste employed in its stead." [11] With this view I am in entire agreement. There can be no cultural "races"; there can only be cultural castes. But when it is added that "the term race should be retained in its biologic context as

[10] The same is true for most other areas of the world: see Beaglehole, "Race, Caste and Class," *Journal of the Polynesian Society*, LXII (1943), 1–11; Humphrey, "American Race and Caste," *Psychiatry*, IV (1941), 159–60; Montagu, "Race, Caste and Scientific Method," *Psychiatry*, IV (1941), 337–38; Dollard, *Caste and Class in a Southern Town;* Warner and Davis, "A Comparative Study of American Caste," in Thompson (editor), *Race Relations and the Race Problem*, pp. 219–45; Davis, Gardner, and Gardner, *Deep South; a Social Anthropological Study of Caste and Class.*

[11] Humphrey, "American Race and Caste," *Psychiatry*, IV (1941), 159–60.

a taxonomic category for the delineation of types of mankind," we must, as the lawyers say, put in a demurrer, for the error committed here is that of all those who assume that because a word or a concept exists there must necessarily be a reality to which that word or concept corresponds. It is the error of assuming that while the term "race" has no validity as a sociological concept, it does possess an established validity as a biological concept with reference to the human species.

Let us consider a little further what the meaning of this term, in the social sense, really is. In countries such as England, France, Germany, and Spain, in which class distinctions are well marked and there exist no significantly large ethnic groups other than the dominant national population, "race" prejudice is replaced by class prejudice. In fact, there is scarcely any difference between the two phenomena. Almost every condition found in the one is to be found in the other, even down to the imputed biological differences. The upper classes make much of "breeding," of "good family" or "birth" or "ancestry," and will not, generally, marry out of their class or "quality." To marry out of one's class is to lose caste, not only socially but also biologically, for such a person's children can belong only to the class of the "inferior" parent. There are, of course, exceptions, but this is the rule. This rule is strictly applied to women, but hardly at all to men. The upper-class male elevates the woman he chooses to marry to his own class; the lower-class male reduces his wife and children to his own class. The biology and stratification of the classes is patrilineally determined, that is to say, they operate through and in favor of the male line. This is not the case where ethnic crossing is concerned, and it constitutes one of the few differences between the workings of class and "race" prejudice. Thus, for example, should an upper-class white male marry a Negroid female, the offspring will, in the United States at least, belong to the class of the mother, not to that of the father's family.

Among the strongest supporters of the view that the upper

classes are not only socially but biologically superior to the lower classes are those who have themselves recently migrated into the ranks of the upper classes from the ranks of the lower classes. Success in life is held to be not so much a matter of social opportunity as of biological quality. Such views determine the attitudes of members of the upper classes toward those of the lower classes, and *vice versa.*

It should be fairly evident that in societies in which there is an extreme division of men into classes whose interests are necessarily opposed and in which the means of earning a living, the economic system, is organized upon an extremely competitive basis, there will be abundant opportunities for class or "race" antagonisms. This is a matter with which we shall deal in the next chapter.

The point I wish to bring out here is that "race" prejudice is merely a special case of class prejudice, a prejudice that will be developed, under certain conditions, where different ethnic groups are thrown together in significant numbers. In the absence of such conditions or in the absence of a variety of ethnic groups the prejudices of the upper classes against all members of the lower classes and their conduct toward the members of such classes will, in almost every respect, take the form which is usually associated with "race" prejudice. Wherever classes exist, there exists class prejudice. It is significant that in a classless society, such as is comprised by the Soviet republics, "race" prejudice is nonexistent. In socially stratified class societies the shift from class prejudice to "race" prejudice is very easily achieved and, in fact, amounts to little more than a change of names, for the "race" against which prejudice is now especially focussed is but another class or caste, even though it may be regarded as something substantially different.

In the case of the American Negro it is necessary to understand that the original difference in his status was one of caste, not of biology. It was only later that the alleged biological differences were attached to the difference in caste. An African or American Negro would be enslaved in virtue of the fact that he belonged to the slave class, *not* biologically, but so-

cially. American Indians were not enslaved, because they had established themselves as a class which did not adapt itself to slavery. White men, however, could be bought and sold if they belonged to the class born to servitude, the lowest class. The status of a Negro could be recognized at once by the color of his skin, which was a great convenience, but nothing more than that. It was only afterward that the obvious physical difference was utilized to reënforce the strength of the arguments in favor of the necessity of continuing the depressed social status of the Negro.

Thus, in the case of peoples showing any physical differences which distinguished them from the dominant class or caste, the mechanism of exclusion works both ways: one may oppose such peoples on the ground of their social inferiority, and one may oppose them on the ground of their biological inferiority, the physical differences being taken to signify the latter. One may then proceed to adopt the view that such peoples are socially inferior because they are physically or biologically inferior, and since the physical or biological difference is constant, the social difference will always remain so. Thus, one may not only have one's cake and cut it into thin slices, but eat it too.

Professors Hogben, Haddon, Huxley, and myself [12] entertain no doubts as to the present meaninglessness of the older anthropological conception of "race." We do not consider that any of the existing concepts of "race" correspond to any reality whatever; but we do consider that the persistence of the term and of the concept has been responsible for much confused thinking and, what is worse, has rendered possible much confused and confusing action resulting in the most tragic consequences for millions of human beings. It is for these reasons that a number of us, as biologists, have recently urged that the term "race" be altogether dropped from the

[12] Hogben, "The Concept of Race," in his *Genetic Principles in Medicine and Social Science,"* pp. 122–44; Huxley and Haddon, *We Europeans;* Huxley, "The Concept of Race," in *Man Stands Alone,* pp. 106–26; Montagu "The Concept of Race in the Light of Genetics," *Journal of Heredity,* XXXII (1941), 243–47; "The Genetical Theory of Race and Anthropological Method," *American Anthropologist,* XLIV (1942), 369–75; see also Barzun, *Race; a Study in Modern Superstition.*

vocabulary. If we do no more than relegate this term to the oblivion to which it properly belongs, this would in itself serve as a contribution toward clear thinking,[13] for what is implied in the anthropological and popular conceptions of "race" represents an egregious and dangerous congeries of errors.

Huxley has suggested that "it would be highly desirable if we could banish the question-begging term 'race' from all discussions of human affairs and substitute the noncommital phrase 'ethnic group.' That would be a first step towards rational consideration of the problem at issue." [14]

Since Huxley does not venture a definition of an "ethnic group," the definition I have already proposed may be repeated: An ethnic group represents one of a number of populations, which together comprise the species Homo sapiens, but individually maintain their differences, physical and cultural, by means of isolating mechanisms such as geographic and social barriers. These differences will vary as the power of the geographic and social—ecologic—barriers vary. Where these barriers are of low power, neighboring ethnic groups will intergrade or hybridize with one another. Where these barriers are of high power, such ethnic groups will tend to remain distinct from each other or replace each other geographically or ecologically.

From this definition or description of an ethnic group it will be seen that the problem of ethnic variation is really an ecological problem and may ultimately, to a considerable extent, be resolved to the problem of the physical mobility of populations and the consequences resulting therefrom. Thus, the problem of ethnic variation falls very definitely within the purview of the student of the social life of man.

One of the important advantages of the term *ethnic group* [15] is that it eliminates all question-begging emphases on physi-

[13] Precisely as was done in the case of the term "instinct," the banishment of which from psychological thought has had a most beneficial effect upon the development of the science of psychology.

[14] Huxley, "The Concept of Race," in *Man Stands Alone*, p. 126.

[15] The term "ethnic" is derived from the Greek ἔθνος ethnos, meaning a

cal factors or differences and leaves that question completely open, while the emphasis is now shifted to the fact—though it is not restricted to it—that man is predominantly a cultural creature. The change in emphasis seems to me highly desirable. It does not exclude the consideration of the possible significance of physical characters, but it leaves the question of the latter open for further dispassionate analysis, omitting any suggestion that the physical factors are determined, fixed, or definable or that they are in any way connected with mental or cultural factors. This is not simply to replace one term by another, but represents a definite shift in emphasis based upon a fundamental difference in point of view. It is the point of view of the person who is anxious to avoid the consequences of thinking in "fuzzy" terms.

If, then, we can replace the outmoded concept of "race" by the concept of the ethnic group, we shall have secured a real clarification and change in conceptual approach to a problem whose importance requires no emphasis here. The sociologist will then be able to proceed with the study of the problem of caste, intra- and inter-socially, with the clear consciousness of the fact that, as far as he is concerned the problem is entirely a social problem and that for him, at any rate, it has no biological relevance at all, but that, in so far as it is necessary for him to take cognizance of the biological evidence, the old concept of "race" has no more scientific justification for use in the field of human biology than it has in the field of human sociology.

In short, the term "race" should be discarded entirely in the cultural reference, and the more appropriate term "caste" should be employed in its stead; while the term "race" should be replaced by the term "ethnic group" in the biologic or ecologic context and should not be used in any human context whatever.

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number of people living together, a company, a body of men. In the *Iliad* Homer variously uses the word to mean a band of comrades, a tribe, a group. Pindar uses it in the sense of a family, tribe, nation, or people.

6

BIOLOGICAL AND SOCIAL FACTORS

THE PROBLEM of the origin and development of different physical types is part of the larger problem of discovering how we all came to be the way we are; that, too, is a social problem, and only arbitrarily and in a very limited technical sense is it a biological problem. Man is outstandingly the one animal species in which "biological" development has, from the very earliest times, been substantially influenced by the operation of social factors—and this, ever increasingly, continues to be the case. The biological development of man cannot be considered apart from his social development, for man is a domesticated, a self-domesticated, animal,[1] and domestication is a social or cultural process by means of which biological changes are produced in animals. Such changes, to a certain extent, represent the socially preferred expression of genetic rearrangements of characters common to the whole of mankind. The chief agencies in the production of such changes are social, but the scientific study of such social agencies has hardly yet been attempted. Thus far, the emphasis has for the most part been upon the biological aspect of such changes, while there has been an almost complete failure to recognize their socially induced origin.

The biological aspects of the subject are important, but only in so far as they render possible an understanding of the

[1] Upon this important subject, in which far too little original work has yet been done, see the following: Hahn, *Die Haustiere;* Klatt, "Mendelismus, Domestikation und Kraniologie," *Archiv. f. Anthrop.*, N.F., XVIII (1921), 225–50; Friedenthal, "Die Sonderstellung des Menschen in der Natur," in *Wege zum Wissen,* Vol. VIII; Fischer, "Rasse und Rassenentstehung beim Menschen," *Wege zum Wissen,* LXII, 1–137; Laufer, "Methods in the Study of Domestications," *Scientific Monthly,* XXV (1927), 251–55; Herskovits, "Social Selection and the Formation of Human Types," *Human Biology,* I (1929), 250–62; Renard, *Life and Work in Prehistoric Times;* Boas, *The Mind of Primitive Man,* pp. 74–98; Boas (editor), *General Anthropology,* p. 108; Fortuyn, "The Origin of Human Races," *Science,* XC (1939), 352–53; Montagu, "The Socio-Biology of Man," *Scientific Monthly,* L (1940), 483–90.

physiological and genetic mechanisms underlying the actual process of change. R. A. Fisher has remarked: "While genetic knowledge is essential for the clarity it introduces into the subject, the causes of the evolutionary changes in progress can only be resolved by an appeal to sociological, and even historical facts. These should at least be sufficiently available to reveal the more powerful agencies at work in the modification of mankind." [2] When the mechanism of these physiological and genetic changes is understood, it is then fully realized that "race" is a term which refers to a process representing a series of genetically active temporary conditions, always in process of change. It then becomes clear that the stage at which one catches this process depends upon the segment of time which one arbitrarily delimits from the space-time continuum in which the process is occurring. Neither "races" of men nor "races" of lower animals are immutable; they seem to become so, but then only conceptually, when an anthropologist or a taxonomist follows the traditional practice of pinning his specimens down for study and classification. It is erroneous to conceive of any animal group, particularly human groups, as static and immutable. It is an error to do so in the case of man in particular, because the facts of prehistory and those of more recent times indicate that new "races" of man have been and are being synthesized very rapidly. In this process social factors play a very important role. Upon recognizing this fact we must further recognize that in our own society the problem of "race" is essentially a problem of caste and class relations and that it is, of course, fundamentally a social problem.

In our own society explanations of the "race" problem have been offered in terms of economic forces, social stratification, biological differences, or all three. Such explanations have never been altogether convincing. The causes motivating human behavior are complex, and human behavior is hardly ever to be explained in terms of single processes, which in themselves are complicated enough, such as the economic,

[2] Fisher, *The Genetical Theory of Natural Selection*, p. 174.

the biological, or the purely sociological. In all cases, in order to understand the nature of any event it is necessary to discover and to relate all the conditions entering into its production; in other words, what is required is a specification of all the necessary conditions which together form the sufficient cause of the event into whose nature we are inquiring.

While it may be true, for instance, that certain conditions arising out of our present economic organization of society are responsible for maintaining and exacerbating the problem of "race," it is by no means certain that a reorganization of our economic system would automatically result in a solution of that problem, although it is more than probable that it would help. It is quite conceivable that "race" problems may exist under ideal economic conditions. These problems, indeed, are by no means simple, and it is therefore necessary to approach them by the use of such methods as are most calculated to clarify them. It would obviously be an egregious error to approach the study of "race" from the standpoint of the economic determinant alone, precisely as it would be an error to approach its study from the viewpoint solely of biology or of sociology. And this brings us to what I consider to be an extremely important methodological aspect of this whole situation. It is the matter of the person who discusses the subject of "race." Hitherto, practically anyone with the ability to develop a hoarse throat, with arrogance in place of erudition, has been able to set himself up as an authority on "race." We need only recall the names of Gobineau, Stoddard, Houston Stewart Chamberlain, Madison Grant, Adolf Hitler, and others, to discover that the principal equipment necessary to qualify one as an authority on "race" consists in a well-rounded ignorance, a considerable amount of maliciousness, and an unshakable confidence. To listen to such "tangled oracles which ignorantly guide" is to suffer a positive increase in one's ignorance. In the universe of science the situation, though incomparably better, is not by any means—as we have already seen—all that could be desired. Until very recently

very little progress has been made in the scientific study of "race." This has been chiefly due to the fact that the subject has been dealt with in piecemeal manner and by specialists with an insufficient grasp of the complexities of the subject. Thus, psychologists have failed to take into account the sociological and biological factors; while sociologists have failed to give adequate consideration to the psychological and biological factors. Finally, and worst of all, the physical anthropologists have restricted their studies almost entirely to the morphological aspects of the subject. There are, of course, a few outstanding students, such as Boas [3] and Klineberg,[4] who have attempted to take cognizance of all the necessary factors. Actually, what we need is more students who will combine the best qualities of the psychologist, the sociologist, and the biologist. Such a combination of qualities is scarcely realized in the modern anthropologist, who treats man as if he were constituted of two distinct and separate universes, a social and a physical, each of which is considered to be the proper field of study of one who qualifies by agreeing to know nothing about the other.

Since, as I have already pointed out, facts do not speak for themselves, but are at the mercy of whosoever chooses to give them a meaning, it is obviously of the first importance that the meaning which they shall receive be given them by thinkers who have made themselves thoroughly acquainted with those facts. As Vice-President Henry A. Wallace has said, "For the combating of 'racism' before it sinks its poison fangs deep in our body politic. the scientist has both a special motive and a special responsibility. His motive comes from the fact that when personal liberty disappears scientific liberty also disappears. His responsibility comes from the fact that only he can give the people the truth. Only he can clean out the falsities which have been masquerading under the name of science in our colleges. our high schools and our public prints.

[3] Boas, *The Mind of Primitive Man* and *Race, Language and Culture.*
[4] Klineberg, *Race Differences.*

Only he can show how groundless are the claims that one race, one nation, or one class has any God-given right to rule." [5]

In the modern world racial problems, as I have already pointed out, are essentially social problems. But no sociologist can ever hope to assist in the solution of these problems without acquiring an adequate understanding of what the biologist, the psychologist, and the psychoanalyst can alone supply, namely, an appreciation of the nature of the fundamental facts of physical and mental development. Obviously, what we need is more human ecologists, liaison officers between the sciences of man.[6] Such human ecologists are at present pitifully few.

THE ECONOMIC FACTOR AND THE FACTOR OF SOCIAL STRATIFICATION

No one will deny that our society is a socially stratified one, and there are few students of society who would deny that social stratification is determined principally by the manner in which our society works economically. The proof of this lies in the fact that it is usually possible to migrate from one social stratum to another only by means of the economic process. By the acquisition of economic power, one rises in the social hierarchy; by the loss of economic power, one falls. Groups and individuals who are denied effective participation in the economic process clearly cannot rise above the lower social strata, while the only way to exclude groups and individuals who have not been denied an effective participation in the economic process from rising and maintaining their places socially is to erect barriers against them, to deprive them, in various ways, of their economic rights. We need hardly go farther back than our own time for the evidence with which to prove

[5] Wallace, *The Genetic Basis for Democracy*, New York, American Committee for Democracy and Intellectual Freedom, 1939, p. 7. See also Wallace, "Racial Theories and the Genetic Basis for Democracy," *Science*, LXXXIX (1939), 140–43.

[6] For a detailed discussion of this aspect of the subject see Montagu, "A Cursory Examination of the Relations between Physical and Social Anthropology," *Amer. J. Phys. Anthrop.*, XXVI (1940), 41–61; "Physical Anthropology and Anatomy," *Amer. J. Phys. Anthrop.*, XXVIII (1941), 261–71.

the truth of this statement. In the parts of Europe under Nazi rule we have witnessed the deliberate creation of such a barrier in the form of a mythological "racial" dogma which has been imposed upon whole peoples—a dogma which, in operation as a barrier, deprives all those who are not mythical "Aryans" of the right to earn a living and to keep even the little which they have. No more telling or painful example than this could be cited of the blatant economic motivation underlying the creation and practice of this mythology which so effectively leads to the social and economic disfranchisement of helpless groups. In the United States there are several perfect examples which may be cited as illustrating the relationship between the economic factor and the presence of racial barriers. Along the Pacific coast, where the Japanese and the Chinese constituted an appreciable competitive group, there was considerable "race" prejudice against them. With the increase in the number of Filipinos entering the United States within recent years, despite the heroic resistance of their compatriots against the Japanese in the Philippines and their loyalty to America, the feeling is being rapidly transferred to them.[7] Along the Atlantic coast, where the numbers of these ethnic groups are comparatively small and they cannot possibly be conceived to constitute economic competitors, there has been relatively little prejudice against them, apart from that which has been generated by the war. Similarly, in California, when American Indians were numerous there was a great deal of prejudice against them. In the Middle West, where Indians are relatively few and under "control," there is very little prejudice against them. In the East a trace of Indian ancestry definitely constitutes prestige value, for In-

[7] "Unwanted Heroes," *The New Republic,* CVI (1942), 655; McWilliams, *Brothers under the Skin.* It is sad to have to record the fact that in the third week of September 1944 the Fourth Filipino Inter-Community convention held at New City, California, adopted as two of its objectives "the abolition of remaining discriminatory legislation against Filipinos" and "permanent post-war exile of all Japanese from California" (reported in *The Pacific Citizen,* Salt Lake City, Utah, 23 September 1944, pp. 3-4. The Filipinos apparently regard the Japanese as serious economic competitors and desire to eliminate them by this means. Or are they simply exhibiting a desire to jump on the bandwagon of the most vocal California "patriots"?

dians are so rare that they are almost worth their weight in genes. In areas such as the South, where the social status of the Negro is changing and he emerges as an economic competitor, the prejudices against the large population of Negroes constitutes a serious problem. In the North, where the economic situation is much better, the Negro has always enjoyed a much greater degree of social and economic freedom. In England, where there are extremely few Negroes or Indians, there is very little active prejudice against these peoples; but as soon as an Englishman goes to Africa or to India, where he observes that the native peoples definitely "threaten" his own interests and those of his own people, he almost invariably develops the usual "racial" prejudices.

Without in the least underestimating the important part which economic factors play in the creation of "race" prejudice in Western society generally, it may be observed that there is no absolutely necessary or sufficient relationship between economic conditions and "racial" problems. Just as it is possible to conceive of difficult racial problems existing under ideal economic conditions, so it is quite possible to conceive of perfect ethnic relations and mutual appreciation under the most difficult economic conditions. The Soviet Union is the outstanding example of perfect management of ethnic group relations under, what were at one time at least, unusually difficult economic conditions.[8] It simply happens to be

[8] In the Soviet Union "a determined stand has been taken against race discrimination. The rational belief in the complete equality of all races has become the official creed, and energetic educational efforts are being made to raise the social and economic conditions of the underprivileged races. Whereas in many parts of the world ruling classes or imperialist governments instigate or refrain from suppressing race conflict for reasons of hegemony or exploitation, communism helps to organize backward races in their struggle for political and economic advancement and liberation. This assistance contrasts with the attitude of many white labor and socialist groups among whom race interests are stronger than class interests. The help given to backward races by communists emanates not only from their identification of racial and class conflicts and from an alliance against the capitalist and imperial powers but also from the fundamental policy against race discrimination within the Soviet Union. Bolshevism continues, in a rationalized and secularized form, the stand of primitive Christianity against race discrimination: but the equalitarian Soviet theory goes farther than most Christian agencies in tackling not only the psychological and emotional causes of race conflicts but also their

the case that in our own society the regrettable discovery has been made that by utilizing the physical and cultural differences which exist between groups and individuals, it is a relatively simple matter to disguise the motives and evade the consequences of one's own conduct by attributing existing and potential evils to the conduct of some other group or to utilize those differences for the most ignoble political purposes. Thus, by setting groups of people against one another attention is diverted from the real sources of evil. The discovery is actually a very old one. As a device for moving people it is extremely well grounded in that it caters to a deep-seated tendency in man to find some cause outside himself upon which to blame his troubles or release his feelings. Tertullian, for example, in pagan Rome was fully aware of the fact that the persecution of the Christian minority was merely being used as a device to sidetrack the attention of the people from the real causes of corruption within the Roman State. Says Tertullian, "if the Tiber rose to the walls of the city, if the inundation of the Nile failed to give the fields enough water, if the heavens did not send rain, if an earthquake occurred, if famine threatened, if pestilence raged, the cry resounded: 'Throw the Christians to the lions!' " In this manner the Roman populace was provided, as later peoples have been, with a socially sanctioned outlet for their pent-up feelings. And that is the important point to grasp about the nature of "race" prejudice, namely, that it is socially sanctioned and socially learned. It is a ready-made and culturally accepted outlet for various forms of hostility and feelings of frustration.

In the South "race" hatred has long been kept alive and fanned to white heat at the instigation of unscrupulous industrialists and politicians, ever ready to capitalize on baseless popular superstitions, prejudices, and beliefs, because there is no issue more useful than "race" as a political platform for

economic roots. The Soviet Union now is the only large area inhabited by many races, free, as far as governmental agencies are concerned, of any form of race prejudice."—Kohn, "Race Conflict," *Encyclopaedia of the Social Sciences,* XIII, 40. See also Stern, "Soviet Policy on National Minorities," *American Sociological Review,* IX (1944), 229–35.

securing votes. Tell the poor whites that their condition is due to the competition of the Negroes and that their very existence is threatened by the latter, and they will vote for anything to which such an issue is tied in apparent favor of themselves.[9] The case is exactly the same in the Union of South Africa, where a comparatively small white population is attempting to protect its economic and social privileges against any incursions which might be made upon them by the large colored population, immigrants, and Jews. The Jews form only 4¾ per cent of the total population, and they have from the first proved themselves loyal and able citizens of the Union. What, then, is the reason for the prejudice against the Jews? Is it the fear of economic competition? In view of their small representation this can hardly be so. While they themselves do not constitute an economic problem, the prejudice against them is utilized and, indeed, inspired by politicians for economic purposes. In a recent sympathetic and penetrating study of the Union Lewis Sowden returns an answer to the question "Why prejudice against the Jews?" He writes: "Simply this, that South Africa, like most other countries, has its Jewish problem kept alive by politicians for purposes of personal or party aggrandisement. The Nationalists used it in 1930 to strengthen their hold on the country and to embarrass General Smuts's opposition. Their Quota Act

[9] "There are millions of white and black men in the South, and their children, on blighted farms and in the slums, who live a more bearable life because of what the Roosevelt administration made possible. But these are the poor and the ignorant, and their race hate, kept alive for years just as Governor Dixon and the Alabama capitalists are keeping it alive now, makes them vulnerable. Of these millions of people whom the New Deal aided, the Negroes cannot vote; most of the whites who can have been poisoned by the propaganda of the reactionaries into a belief that the President and Mrs. Roosevelt are trying to wipe out all racial barriers under the war emergency; the Dixons are now in the saddle; they seem to be able to foster on the disfranchised masses anything they want to; and once more in the South's sad history, just as in the Agrarian-Populist movement in the 1890's, the people's enemies have taken over a people's movement. Once more the white man's fear of the Negro has made it possible. It is no mystery why the South's congressmen, elected by a small and privileged proportion of its population, fight so hard to defeat an anti-poll-tax bill; and it is no mystery, come to think of it, why reactionary Northern members, their blood brothers, by one subterfuge and another let them get away with it." Sancton, "Trouble in Dixie," *The New Republic*, CVIII (1943), 51.

[aimed against the Jews] had the full support of their own people and many sympathisers among the other parties. General Smuts's men could not effectively oppose it for fear of being accused as 'pro-Jewish,' fatal, of course, for any politician." [10]

"Race" prejudice is easily generated in our society, because our society is socially and economically so organized as to be continually productive of frustrations in the individual; these in turn produce an aggressiveness for which the individual must find expression in some way. But the aggressiveness for which the individual must find release is not entirely produced by economic factors. This, however, is a matter to which we shall return later. It should be obvious that the frustrative situations called into being by economic and social factors, while producing some aggressiveness in the individual, do not in themselves and need not necessarily lead to "race" prejudice. That the aggressiveness produced by such factors may lead to "race" prejudice is entirely to be explained by the fact that "race" prejudice constitutes a socially sanctioned and a socially directed means of releasing aggressiveness. The aggressiveness may in part be produced by socio-economic factors, but the form of the response which that aggressiveness takes is not necessarily linked with such factors. Alternative responses are available, but "race" prejudice is among the easiest and the psychologically most satisfying. Merton has described the frustrative situation very effectively. He writes: "It is only when a system of cultural values extols, virtually above all else, certain *common* symbols of success *for the population at large,* while its social structure rigorously restricts or completely eliminates access to approved modes of acquiring these symbols *for a considerable part of the same population,* that antisocial behavior ensues on a considerable scale. In other words, our egalitarian ideology denies by implication the existence of noncompeting groups and individuals in the pursuit of pecuniary success. The same body of success-symbols is held to be desirable for all. These goals are held to *tran-*

[10] Sowden, *The Union of South Africa,* p. 216.

scend class lines, not to be bound by them, yet the actual social organization is such that there exist class differentials in the accessibility of these *common* success-symbols. Frustration and thwarted aspiration lead to the search for avenues of escape from a culturally induced intolerable situation; or unrelieved ambition may eventuate in illicit attempts to acquire the dominant values. The American stress on pecuniary success and ambitiousness for all thus invites exaggerated anxieties, hostilities, neuroses and anti-social behavior." [11]

The avenue of escape from such frustrative conditions is almost always the same, through aggressiveness. The object to which that aggressiveness may attach itself is culturally determined by what is rendered culturally available. "Race" represents a cultural misunderstanding of certain facts, but from the point of view of the psyche of the individual it presents a most satisfactory solution of a particular problem, affording, as it does, both a convenient and a suitable release object for aggressiveness. It should, however, be clearly understood that the misunderstanding is cultural in origin, not economic. The conception of "race" is a cultural artifact and does not in itself lead to "race" prejudice. What leads to "race" prejudice is the cultural manipulation of those psychophysical energies which, in most persons, overtly find expression in some form of aggressiveness, no matter what the nature of the underlying motivation for that manipulation may be. Economic factors represent but one group of conditions—and these are of the greatest importance—by means of which such aggressiveness may be called forth under conditions and in situations in which it may be easily attached to "race." Economic factors, in our society, are certainly among the most important of the factors leading to situations in which "race" prejudice may be caused to develop, but that such factors are virtually entirely dependent upon cultural factors for the direction which they may be made to give to individual aggressiveness is proved by the fact that the aggressiveness arising under those same economic conditions can just as well be

[11] Merton, "Social Structure and Anomie," *Amer. Sociol. Rev.*, III (1938), 680.

directed toward the production of good fellowship and mutual aid between different ethnic and social groups. Such fellowship and coöperation between different groups has been repeatedly witnessed in times of war, when, for example, an alien nation has become the socially sanctioned release-object for one's aggressiveness. In peace time the repair of some natural disaster, affecting the lives of all, frequently produces the same effect, by providing a wholesome outlet for such aggressiveness. The attack upon some social problem requiring solution is in every way a far more satisfactory outlet for aggressiveness than an attack upon other human beings. Clearly, then, it is what is culturally offered as the most suitable object for the release of these aggressive tendencies that is the primarily important fact, the economic factor is only of secondary importance. As Dollard has put it, "race prejudice seems, then, but a footnote to the wider consideration of the circumstances under which aggression may be expressed within a society." [12] Economic conditions are culturally utilizable, for good or for evil purposes, as each culture, or segment thereof, sees fit. If in some cultures the aggressiveness which arises under such conditions is made to release itself in hostile behavior toward some group, that can hardly be said to be due to economic conditions, but must clearly be held to be due to those factors which render possible the cultural manipulation of the situation to which such conditions give rise. In short, economic factors may provide some of the conditions in which "race" hostility may be generated, but unless those conditions are directed into channels leading to "race" hostility, there will be no "race" hostility, and the aggressiveness which must be released will have to find some other outlet.

Prejudice against the Japanese in California affords an excellent case study of the complexity of the factors involved. Here it would be an easy matter for the economic determinist to show that economic factors are chiefly responsible for that prejudice, but he would not be entirely correct. A study of

[12] Dollard, "Hostility and Fear in Social Life," *Social Forces,* XVII (1938), 15–26.

the history of the prejudice against the Japanese in California proves that a large number of independent factors are involved.

In the first place, Japanese immigration into California unfortunately coincided with the rise of Japan as a great power with territorial ambitions, hence Japanese immigrants came to be regarded as "the spearhead of Japanese invasion." Corrupt politicians, anxious to divert public attention from their own malpractices, and newspapers supporting the latter or for their own particular purposes, have continually emphasized the danger that California might develop a "race problem" even worse than the color problem in the South. The continual emphasis on the inevitability of war with Japan, the fact that the Japanese present very perceptible physical and cultural peculiarities, their hard-won, but warmly resented, expansion into fields of commerce in which they have become competitors where whites formerly held the field exclusively, are important factors, among others, which together have been responsible for the development of "race" prejudice against the Japanese in California.[13]

The aggressive intentions of the Japanese government and fear of the development of another "color problem," two issues almost daily drummed into the ears of Californians, would alone have been sufficient to produce an acute case of "race" prejudice. Add to these the other factors already mentioned, and many others not mentioned, and it becomes clear that any explanation in terms of a single factor does violence to the facts.

Many Californians dislike the Japanese, not because they constitute an economic threat, but because they have been taught to believe that they are opposed to all that good Californians and good Americans stand for. Today some Californians refuse to permit loyal American citizens of Japanese ancestry to return to their former homes in California. Scheming

[13] For an admirably clear analysis of the problem in California see McWilliams, *Brothers under the Skin,* pp. 147–75, and the same author's *Prejudice—The Japanese-Americans: Symbol of Racial Intolerance.*

politicians declare that were they permitted to do so every Japanese seen on the streets would be killed, thus artfully inciting the public to riot and murder. What are the motives of these polwiticians? Obviously, what they have always been: to keep the "race" issue alive so that they may fully exploit it for their own and their friend's economic advantage.

The details may vary where the members of different ethnic groups are involved and in different regions, but the general pattern of racism is the same wherever found and under whatever high-sounding name it may be disguised. Not one factor, but a complex of factors, is generally involved. Nevertheless, when this has been said and all the necessary conditions entering into the cause of "race" prejudice have been specified, it remains certain that the most important factor involved in those conditions is the economic factor. Our economic system with all the frictions, frustrations, misery, and war which it brings is a basic cause of racism and "race" situations. These, together, supply the motivation and a good deal of the aggressiveness which is expressed in "race" prejudice. "Race" prejudice is a socially sanctioned and socially directed means of releasing aggression, because in our society there exist powerful groups of men who for their own interest and in order to maintain their power must maintain divisions between men. It is the domestic application of the Nazi formula "Divide and rule." What more simple than to produce such divisions between the members of different ethnic groups within our society? They are "aliens," "foreigners," "the white man's burden," "the rising tide of color," "the yellow peril," "Niggers," "the International Jew," "Wops," "Greeks," and so forth. In an economic organization of society which is always characterized by the presence of one crisis or another, with its attendant unemployment in the industries involved, the aggrieved part of the population is easily led to believe that if there were fewer people to be employed, there would be employment and adequate wages for all. "Race" antagonism under such conditions is easily generated.

It must always be remembered that, as Reuter has put it,

"in the human as in the subhuman realm, the geographic distribution, the physical differences, the varying modes of life, and the mental traits and characteristics are, in large measure, the impersonally determined end results of the competitive struggle to live. Men live where they can secure the means to life, and they develop the physical, mental, and social characters that enable them to live in the area." [14]

One of the most serious "end results of the competitive struggle to live" in our society is "race" prejudice. It has been pointed out that the economic factor is not the sole condition involved in the causation of "race" antagonism; it is a necessary factor, but not the sufficient cause. I think we can all accept that as a reasonable statement of the case. It should, however, be quite clear that in our society the economic factor is a predominant condition in the causation of such antagonisms, a necessary condition without which—whatever we may be able to *conceive* to the contrary—such antagonisms would not occur. Like good doctors, therefore, if we would prevent the disease, we must eliminate or modify the principal condition or conditions which give rise to it. In other words, we must eliminate the condition of economic duress under which so many human beings are unjustly forced to live today. By so doing we will have removed the most important cause of "race" prejudice; such other causes as remain can then be dealt with efficiently. This is something to understand and to work for.

[14] Reuter, "Competition and the Racial Division of Labor," in *Race Relations and the Race Problem* (edited by Thompson), p. 49.

7

PSYCHOLOGICAL FACTORS

IT IS AT this stage in our discussion that I wish to focus attention upon the one general factor which seems to have been almost always overlooked in discussions of the "race" problem. This is the factor of the normal psychophysical and psychological traits of the individual—traits which are utilized in the generation of "racial" enmities and which have already been touched upon in the preceding chapter.

The one thing clear concerning "racial" hostility and prejudice is the ease with which individuals are led to exhibit it. There are very few persons in our society who have not, at one time or another, exhibited evidence of "racial" prejudice; and it would seem clear that most persons are capable of being brought to a state of mind in which they are really glad of the opportunity of freely releasing their feelings against some group or an individual representing such a group. When society as a whole sanctions the attachment of such feelings to any group, the free exercise of "racial" intolerance is enjoyed as a happy release for feelings which are ever ready to find expression. Now, it is in the nature of such feelings—the character of which we shall presently discuss—that they can be suitably directed against some individual or particular group of individuals, and it is for this reason that they can be so easily directed to the support and maintenance of "race" prejudices. The individual exhibits "race" prejudice because it affords him a means of easing certain tensions within himself; because he is happiest when he is most freely able to release those tensions. As far as the individual is concerned, the prejudice itself is unimportant, it merely provides the channel through which his feelings are allowed necessary expression. Such feelings should, and for the sake of the health of the individual must, find expression. As I have already said, such

feelings will attach themselves to the most suitable object offered—whatever it may be. Such feelings are *not* feelings of "race" prejudice, or any other kind of prejudice; and they are not inborn. On the contrary, such feelings are to a very large extent generated during the early childhood development of almost every person. There can, however, be little doubt that the elementary forms of these affective states in their undifferentiated condition, are physiologically determined.[1] The manner in which such feelings are generated has been discussed in great detail by the psychoanalysts and others. I shall here briefly review the process involved in these dynamisms.

The aggressiveness which adults exhibit in the form of "race" hatred would appear to have universally the same origin. By this I mean that the aggressiveness, not the "race" hatred, has the same origin universally and that the aggressiveness is later merely arbitrarily directed, in some societies against certain groups. Under other conditions this same aggressiveness could be directed against numerous different objects, either real or imagined. The object against which aggressiveness is directed is determined by particular conditions, and these we shall later briefly consider.

If it be agreed that in "racial" intolerance and prejudice a certain amount of aggressiveness is always displayed, we must ask and answer two questions: (1) where does this aggressiveness originate and (2) why is it exhibited?

Briefly, it is here suggested that a considerable amount of the aggressiveness which adults exhibit is originally produced during childhood by parents, nurses, teachers, or whoever else participates in the process of socializing the child. By depriving the infant, and later the child, of all the means of satisfaction which it seeks—the nipple, the mother's body, uncontrolled freedom to excrete and to suck, the freedom to cry at will, to scream and shout, to stay up as late as one wishes, to

[1] Fremont-Smith, "The Physiological Basis of Aggression," *Child Study*, XV (1938), 1–8, and "The Influence of Emotional Factors upon Physiological and Pathological Processes," *Bull. N.Y. Acad. Med.*, XV (1939), 560–69.

do the thousand and one things that are forbidden, frustration upon frustration is piled up within the child.[2] Such frustrations lead to resentment, to fear, to hatred, and to aggressiveness. In childhood this aggressiveness or resentment is displayed in "bad temper" and in general "naughtiness." Such conduct almost invariably results in further frustration—in punishment. At this stage of his development the child finds himself in a state of severe conflict. He must either control the expression of his aggressiveness or else suffer the punishment and the loss of love which his aggressiveness provokes. Such conflicts are usually resolved by excluding the painful situation from consciousness and direct motor expression—in short, by the repression of one's aggressive energies. These are rarely ever completely repressed, but only in so far as they permit a resolution of the original conflict situation, and the farther the original derivatives of what was primarily repressed become removed from the latter, the more freely do these energies gain access to consciousness and the more available for use do they become.[3] The evidence renders it overwhelmingly clear that these energies are never to any extent destroyed or exhausted. Being a part of the total organism, they must, in one way or another, find expression, and the ways in which they can find expression are innumerable. "Race" hatred and prejudice merely represent familiar patterns of the manner in which aggressiveness may express itself.[4]

Fear of those who have frustrated one in his childhood and anxiety concerning the outcome of the situation thus produced lead to the repression of aggression against the original frustrators and thereby to the *conditioning* of an emotional association between certain kinds of frustrative or fear situations and aggressive feelings. As a result of such conditioning, any object even remotely suggesting such fear or frustrative

[2] Frustration may be understood as the thwarting of expected satisfaction.

[3] It will be noted that there is here an interesting parallel to the second law of thermodynamics.

[4] For interesting treatments of this view see Dollard and others, *Frustration and Aggression*, and Durbin and Bowlby, *Personal Aggressiveness and War.*

situations provokes the aggressive behavior with which such fears and frustrations have become associated.

It must again be emphasized that the aggressiveness which is more or less common to all human beings is not a cause of "race" prejudice, but merely represents a motive force or affective energy which can be attached, among other things, to the notion that other groups or "races" are hateful and may thus serve to keep such ideas supplied with the emotional force necessary to keep them going. Under such conditions "race" becomes important, not as a biological description or ethnic classification, but as the expression of an unconscious conflict.

Since the infliction of mental, and even physical, pain, as well as the frustration and depreciation of others, is involved in the process of "race" prejudice, and since much of the aggressiveness of the individual owes its existence to early experiences of a similar sort, it is perhaps not difficult to understand why it is that most persons are so ready to participate in the exercise of "race" prejudice. By so doing they are able to find an object for their aggressiveness which most satisfactorily permits the free expression of aggressiveness by means almost identically resembling those which in childhood were indulged in against them. In this way is the individual enabled, as an adult, to pay off—quite unconsciously—an old score of childhood frustration. The later very appreciable frustrations suffered in adolescence and adult life naturally add to the store and complexity of aggressiveness, and require no discussion here. In this place we can do no more than refer to such important psychological mechanisms as "displacement," which defines the process whereby aggression is displaced from one object to another, and "projection," the process of attributing to others feelings and impulses originating in ourselves which have been refused conscious recognition.

As MacCrone has written in a valuable study of the psychology and psychopathology of "race" prejudice in South Africa, "the extra-individual conflicts between the two racial groups are but the intra-individual conflicts within the mind

writ large, and until the latter are removed, reduced, or modified, they must continue to exercise their baleful influence upon the race relations and the race contacts of white and black." [5]

Briefly, then, the factor which has been most consistently overlooked in discussions of "race" problems is the psychological factor; the deep motive forces represented by the aggressiveness which is present in all human beings and is continually being augmented by the frustrations of adult life. It is this aggressiveness which renders so easily possible the usual emotional and irrational development of "race" prejudice. A rational society must reckon with this factor, for since a certain amount of frustration is inevitable, and even desirable, in the development of the individual and a certain amount of latent aggressiveness is an ineradicable and necessary part of the equipment of most human beings,[6] the task of an intelligent society is clear. Society must provide outlets for the aggressiveness of the individual which will result in benefits both to the individual and through him to society. Outlets for aggression which result in social friction and in the destruction of good relations between human beings must be avoided. Frustrations in the early and subsequent development of the individual must be reduced to a minimum, and aggressiveness always directed toward ends of constructive value.

ATTITUDES OF MIND

It has already been pointed out that the problem of "race" in our society is social, and not biological in any but the narrow technical sense. Fairness toward other groups of persons is a matter of simple human decency; and decency is an attitude of mind, for the most part culturally produced. Whether ethnic groups or castes are biologically equal is an utterly irrelevant consideration where fair-mindedness is concerned. Whatever differences exist between peoples and however they

[5] MacCrone, *Race Attitudes in South Africa*, p. 310.

[6] "In this world it is very important to be aggressive, but it is fatal to appear so."—Benjamin Jowett.

may have been determined, the willingness to understand those differences and to act upon them sympathetically ought to increase in proportion to the magnitude of the differences which are believed to exist between ourselves and others. As Professor E. G. Conklin has so well put it: "To the naturalist the differences between human races, subraces, and individuals are small indeed as compared with their manifold resemblances. Biology and the Bible agree that 'God hath made of one blood all nations of men.' Our common traits and origin and fate, our common hopes and fears, joys and sorrows, would call forth our common sympathy with all mankind, if it were not for the lessons of hate which have been cultivated and instilled by selfish and unscrupulous persons and social groups. These racial antagonisms are not the results of inexorable nature, nor of inherited instincts, but of deliberate education and cultivation." [7]

The plea for fairness in dealing with different ethnic groups is usually phrased in terms of "tolerance." But if we are to make progress in ethnic relations it is desirable to recognize that in practice tolerance amounts to what, for the most part, we already have, namely, a somewhat reluctant admission of the necessity of enduring that which we must bear, the presence of those whom we do not like. A New York high-school girl recently put the whole matter in a nutshell. "Tolerance," she said, "is when you put up with certain people but you don't like to have them around anyhow." That, it is to be feared, is the general conception of tolerance, the hand-washing indifference of the "superior" being who patronizingly condescends to endure the coexistence of "inferior" beings and then holds the latter at their "proper" distance. Tolerance is the attitude of mind of those who consider themselves not only different but superior. It implies an attitude toward different ethnic or minority groups, not of understanding, not of acceptance, not of recognition of human equality, but of recognition of differences which one must suffer—generally, not too gladly. We must be more than tol-

[7] Conklin, "What Is Man?" *Rice Institute Pamphlet*, XXVIII (1941), 163.

erant; we must be fair. Tolerance is the best one can hope for from bigots; fairness is the attitude of mind we look for in decent, humane people. By fairness, where ethnic relations are concerned, is meant the attitude of mind which takes it for granted, there being no actual evidence to the contrary, that for all their individual differences no human being is really superior to another by virtue of his group affiliation and that, given the necessary opportunities, it is probable that the average individual of any one group is capable of doing at least as well as the average individual of the culturally most advanced group. It is more than merely being willing to concede that the *others* are not superior to *us;* it is readiness to accept the verdict that *we* are not superior to the *others.* One is not called upon to be magnanimous, still less is one called upon to condemn or condone, but one is called upon to attempt to be fair—to understand and then to act upon that understanding.

Until such an attitude of mind becomes part of the equipment of every individual, no amount of instruction in the biological facts concerning "race" will ever succeed in eliminating "race" prejudices.

"Race" prejudice is ultimately merely the effect of an incompletely developed personality—a personality, that is, which has not yet learned any of the simple fundamental facts of its own nature or of the nature of other human beings, for to understand others it is first necessary to understand oneself. Such a personality is still utilizing the infantile method of beating the object which it imagines has in some way been the cause of its frustration; it is a personality which is still shifting the blame onto someone else for its errors and is still boasting that "my father is bigger than yours." It is a personality which contrasts sharply with the adult developed personality which tries to understand and does not seek to wash its hands of its fellows by condemning or condoning their conduct and thus dismissing them from its mind. The developed person does not automatically resort to the infliction of punishment because he has been frustrated, but he attempts

to understand the cause of his frustration and then, in the light of that understanding, so to act that such frustrations will not again be produced. He does not try to escape the exercise of understanding by emotionally letting off steam. He accepts responsibility for his own acts and is moved by the injustice of the acts of others to attempt to remedy the conditions which gave rise to them. He understands that no one's father is really bigger than anyone else's father and that to act in a superior manner is merely a childish way of asserting one's childish desire to feel important, to feel that one amounts to something. He realizes that, on the other hand, the desire to feel that one belongs with all mankind and not above or below any group, that to feel that one is of them and belongs with them, is the most satisfying and efficient way of living and thinking. He not only insists upon the right of everyone to be different, but rejoices in most of those differences and is not unsympathetically indifferent to those which he may dislike. He realizes that diversity is not only the salt of life but also the true basis of collective achievement, and he does everything in his power to further the purposes of that collective achievement.[8]

True culture has been defined as the ability to appreciate the other fellow. While this particular ability has many sources, it is generally derived from varied, sympathetic, and understanding contacts between people who differ from each other in some respects.[9]

If "race" prejudice is ever to be eliminated, society must assume the task of educating the individual—not so much concerning the facts of "race" as about the processes which lead to the development of a completely integrated human being. The solution here, as in so much else, lies in education; education for humanity first and with regard to the facts

[8] For a valuable discussion of this aspect of the subject see Davidson, "The Anatomy of Prejudice," *Common Ground,* I (1941), 3–12; and Huxley, *Man Stands Alone.*

[9] Taft, "Cultural Opportunities through Race Contacts," *Journal of Negro History,* XIV (1929), 19.

afterward. For of what use are facts unless they are intelligently understood and humanely used?

Suppose for a moment that significant differences did exist between different peoples which rendered one, in general, superior to the other, a reasonably developed human being would hardly consider such differences sufficient reason for withholding any opportunities for social and cultural development from such groups. On the contrary, he would be the more anxious to provide them with such opportunities. Undeveloped personalities operate in the opposite way and, creating most of the differences they condemn, proceed to intensify those differences by making it more and more difficult for the groups thus treated to avoid or to overcome them.

Fromm writes: "The implicit assumption underlying much reactionary thinking is that equality presupposes absence of difference between persons or social groups. Since obviously such differences exist with regard to practically everything that matters in life, their conclusion is that there can be no equality. When the liberals conversely are moved to deny the fact of great differences in mental and physical gifts and favorable or unfavorable accidental personality conditions, they only help their adversaries to appear right in the eyes of the common man. The concept of equality as it has developed in Judaeo-Christian and in modern progressive tradition means that all men are equal in such basic human capacities as those making for the enjoyment of freedom and happiness. It means, furthermore, that as a political consequence of this basic equality no man shall be made the means to the ends of another group. Each man is a universe for himself and is only his own purpose. His goal is the realization of his being, including those very peculiarities which are characteristic of him and which make him different from others. Thus, equality is the basis for the full development of difference, and it results in the development of individuality." [10]

The evidence suggests that there exist no really significant

[10] Fromm, "Sex and Character," *Psychiatry*, VI (1943), 23.

differences between groups of mankind, that there are differences only between individuals. In every group there will be found a large range of differences in the native endowment of its members, some individuals are naturally inferior to others in the realizable potentials of intelligence, in vigor, or in beauty. Such differences may, by some, be made the pretext for heaping contumely and humiliation upon those who are less fortunately endowed than their fellows; but it would be scarcely human to do so and less than decent.

It should be clear that both the form of the mind and the form of the body are so dependent upon social conditions that when the latter are unequal for different groups, little or no inference can be made as to the mental and physical potentialities of those groups.

Until we have succeeded, by means of the proper educational methods, in producing that cultivation of the mind which renders nothing that is human alien to it, the "race" problem will never be completely solved. The means by which that problem may to some extent be ameliorated have already been indicated and will be further discussed in the last chapter and the appendix which follows it.

There is one more aspect of the psychology of "race" prejudice to which I should like to draw attention, that is, the process of rationalization, the process of finding reasons to justify one's emotionally held beliefs.

We saw in Chapter 1 by what means "race" prejudice originally came into existence in the United States, namely, as the device by means of which the proslavery party attempted to meet the arguments of the abolitionists that the slaves were men and brothers and should be free. The upholders of slavery avidly sought for reasons with which to justify their interest in maintaining that institution, and they brought those reasons forward in force and from all sorts of sources, including the Bible. But no matter from what source they drew their reasons, they were nothing but rationalizations of the worst kind.

Since "race" prejudice invariably rests on false premises, for

the most part of emotional origin, it is not surprising to find that it is practically always rationalized. And so it has always been. As Professor W. O. Brown points out: "The rationalization is a moral defense. And the rationalizer is a moralist. The rationalization, in the nature of the case, secures the believer in his illusion of moral integrity. The morality of the rationalization is perhaps intensified by the fact that it represents an effort to make that which is frequently vicious, sordid, and inhumane rational, idealistic, and humane. The semi-awareness of the real nature of the attitude being rationalized intensifies the solemnity with which the rationalization is formulated. Securing moral values the rationalization naturally partakes of a moral quality. This fact explains, in part, perhaps, the deadly seriousness of the devotee of the rationalization. Its value lies in the fact that it removes the moral stigma attached to race prejudice, elevating this prejudice into a justified reaction." [11]

The rationalization is not, of course, regarded as the expression of prejudice, but rather as the explanation of one's behavior—the reason for it. Few rationalizers are aware of the fact that their reasons are simply devices for concealing the real sources of their anatagonisms. They do not know that thought is a means both of concealing and of revealing feelings and that a conviction in the rationality of one's conduct may signify little more than a supreme ability at self-deception. As Professor Brown remarks, "the rationalization is not regarded as cloaking antagonism, but is regarded as a serious interpretation of conduct. No good rationalizer believes that he is prejudiced." Hence, the stronger the reasons we hold for any belief, the more advisable it is to inquire into the soundness of the supports upon which they rest. This is especially true when the beliefs are as strongly held as they are in connection with "race" prejudice.

[11] W. O. Brown, "Rationalization of Race Prejudice," *The International Journal of Ethics*, LXIII (1933), 305.

8

THE CREATIVE POWER OF "RACE" MIXTURE

ONE OF THE MOST strongly entrenched popular superstitions is the belief that interbreeding, or crossing, between "races" results in inferior offspring and that the greater part of such crossings lead to degeneration of the stock. The commonly employed stereotype has it that the half-caste inherits all the bad and none of the good qualities of the parental stocks. These bad qualities the half-breed is said to transmit to his offspring, so that there is produced a very gradual and a very definite mental and physical deterioration within the group, finally resulting in complete infertility. Not only has the dying-out of peoples been attributed to this cause, but it has also been held responsible for "the chronic unrest of eastern Europe, the so-called 'eastern question'" being, it is alleged, "only the ferment of mixed bloods of widely unlike type." [1]

A quite novel view of the dangers of "race" mixture has been expressed by the late Madison Grant. According to this writer the native American of colonial stock "will not bring children into the world to compete . . . with the Slovak, the Italian, the Syrian, and the Jew. The native American is too proud to mix socially with them, and is gradually withdrawing from the scene, abandoning to these aliens the land which he conquered and developed." [2]

Here we perceive that it is the fear of "race" mixture, of "race" contamination, and a sense of pride in the "purity" of one's own stock which, according to Madison Grant, is leading to the disappearance of that Old American stock in the United States.

As is the case with most of the evils which have been attrib-

[1] Widney, in *Mankind; Racial Values and the Racial Prospects*, I (1917), 167.
[2] Grant, *The Passing of the Great Race*, pp. 81–82.

uted to so-called "miscegenation," or "race" mixture, there is not a particle of truth in any of these statements. Such facts as they may have reference to are in practically every case due to purely social factors. The colonial stock from which Madison Grant's long-headed, blond, blue-eyed native American is supposed to have descended was far from being the homogeneous "Nordic" stock which he and Henry Fairfield Osborn imagined. It was left to one of those scorned lowly "Slovaks," who had come to these shores as a poor immigrant boy, the distinguished American physical anthropologist Aleš Hrdlička, to prove that the colonial stock was a very mixed lot indeed. The evidence indicates that very few of them could have been blonds and that the roundheaded were distinctly more numerous than the longheaded.[3]

The fact that half-castes often impress those who are not disposed to judge them sympathetically as mentally and morally inferior to their parental stocks is, in many cases, to be explained by the fact that such hybrids are acceptable neither to the mother's group, on the one hand, nor to the father's group, on the other. That, indeed, is the precise significance implied in the term "half-caste." In most instances the half-caste himself finds it extremely difficult to adjust to conditions which are themselves the cause of maladjustment in others. Generally it is his lot to live under conditions of the most depressing kind and to occupy an anomalous and ambiguous position in society.[4] As Castle has written: "Since there are no biological obstacles to crossing between the most diverse human races, when such crossing does occur, it is in disregard of social conventions, race pride and race prejudice. Naturally therefore it occurs between antisocial and outcast specimens of the respective races, or else between conquerors and slaves. The social status of the children is thus bound to be low, their educational opportunities poor, their moral background bad. . . . Does the half-breed, in any com-

[3] Hrdlička, *The Old Americans*, p. 54.

[4] For a discussion of the half-caste in our society see Stonequist, ***The Marginal Man: a Study in Personality and Culture Conflict.***

munity of the world in which he is numerous, have an equal chance to make a man of himself, as compared with the sons of the dominant race? I think not. Can we then fairly consider him racially inferior just because his racial attainments are less? Attainments imply opportunities as well as abilities." [5] Coming, as they do, from one of the world's leading mammalian geneticists, those words are worth a great deal.

There can be little doubt that those who deliver themselves of unfavorable judgments concerning "race-crossing" are merely expressing their prejudices. For within the framework which encloses the half-caste we are dealing with a conspicuous example of the action of socially depressing factors, not with the effects of biological ones. The truth seems to be that far from being deleterious to the resulting offspring and the generations following them, interbreeding between different ethnic groups is from the biological standpoint highly advantageous to mankind.

Just as the fertilizing effects of the contact and mixing of cultures leads to the growth and development of the older forms of culture and the creation of new ones within it, so, too, does the interbreeding of different ethnic groups lead to the growth and development of the physical stock of mankind.

It is through the agency of interbreeding that nature, in the form of man's genetic system, shows its creative power. Not so long ago, when it was the custom to personify nature and to speak somewhat metaphysically of "her" as the purposive mother of us all, we should have said that crossing is one of nature's principal devices for the uninterrupted production of ever new and more vigorous types of life.

Hybridization is one of the most fundamental processes of evolution. Hybridization of plants in nature is a continuous phenomenon, in lower animals it is also continually proceeding, while in man it is an age-old process which was unquestionably operative among his protohuman ancestors.[6] The ad-

[5] Castle, "Biological and Social Consequences of Race Crossing," *Amer. J. Phys. Anthrop.*, IX (1926), 147.

[6] Darwin was probably the first biologist to suggest that it was the bringing together of dissimilar germinal substances, rather than the mere act of crossing

vantages of hybridization over any other process in developing new human types should be obvious. Evolution by mutation, for example, is a very slow and incalculable process compared with evolution by hybridization.[7] Furthermore, far from causing any existing stocks to die out, the injection of new genes into old stocks has often been the one means which has not only saved them from extinction but also served completely to revitalize them.

Populations consisting of inbred family lines need not be genetically any better or worse than populations which are not mixed, but if, on the whole, we compare the advantages of inbreeding with those of outbreeding, the advantages are chiefly with the latter. Inbreeding is not in itself a bad thing, and under certain conditions may be favorable for the production of speedy evolutionary changes, but there is always a danger of degenerative effects arising from the emergence of concealed deleterious recessive genes. In outbreeding, on the other hand, this danger is reduced to a minimum or altogether eliminated. In general outbreeding serves to increase physical vigor and vitality. Depending upon the size of the population inbreeding in small populations tends to produce a relative homogeneity of characters; outbreeding, on the other hand, tends to produce a heterogeneity of characters and to increase variability. The former state, over the course of time, may give rise to an actual condition of stagnation or the inability to meet new environmental conditions; the latter to an increased physical vigor and vitality.

An example from human populations will illustrate this. Ride has recently shown that the inland populations of North Borneo exhibit a dangerously low birth rate in comparison with the coastal populations. The former are exclusively inbreeding groups; the latter, because of their contacts with many different peoples on the coast, are very largely outbreeding groups. As Ride has put it: "Biological history is

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which produced an increase in size and vigor in hybrid plants and animals. See Darwin, *Variation of Plants and Animals under Domestication.*

[7] Hybridization may cause a speeding up of mutation rates.

full of instances of the price paid by races, both plant and animal, which cannot cope with a change in environment. . . . A large population of heterogeneous individuals ensures that a change in environment will be successfully met by the survival of at least a percentage of the population, whereas a population of relatively homogeneous individuals —such as may be produced by continued inbreeding and selection—stands less chance of successfully negotiating a marked environmental change. . . . Any new infusion of blood should come from tribes that have proved themselves to be capable of surviving the changed environment. By this means and this only will the population be saved, and when all is said and done, this is merely the way that nature herself copes with these problems." [8]

The phenomenon of increased vigor following upon hybridization has been long recognized by biologists and is known as *heterosis*, or hybrid vigor.[9] By "hybrid vigor" is meant the phenomenon frequently observed as a result of the crossing of the members of two distinct species, varieties, or groups, in which the hybrid, that is, the offspring resulting from the union of a sperm and an egg which differ in one or more genes, exceeds both parents in size, fecundity, resistance, or other adaptive qualities.

From this definition it will be perceived that all possible matings between human beings must result in hybrids, since all potential human matings, whether they occur in the same or different ethnic groups, are necessarily between individuals who differ from one another in many more than one gene. In practice, however, the term "hybrid" is used to refer to the offspring of two individuals who differ from one another in their genetic constitution for one or more distinctive characters or qualities. The essential difference between these

[8] Ride, "The Problem of Depopulation with Special Reference to British North Borneo," *The Caduceus* (University of Hongkong), XIII (1934), 182–83.

[9] As early as 1859 Darwin wrote: "Hence it seems that, on the one hand, slight changes in the conditions of life benefit all organic beings, and on the other hand, that slight crosses, that is, crosses between the males and females of the same species, which have been subjected to slightly different conditions, or which have slightly varied give vigour and fertility to the offspring." *The Origin of Species,* chap. ix.

two conceptions of a hybrid is an important one; we shall return to it upon a later page. In what follows we shall abide by the latter conception of a hybrid because it is in that sense that the term is most commonly used.

The evidence indicates that hybrid vigor results because each parent supplies dominant genes for which the other parent is recessive. In other words, characters or qualities which would not normally be expressed or come into being were each of the parents to breed within their own groups, are newly created when there is cross-breeding between the members of different groups. It is for this reason that stocks of human beings on the verge of extinction may be saved by a new infusion of genes which combine with those of the old stock to result in vigorous offspring.

The new types which emerge in this way generally exhibit something more than merely the blended sum of the properties of the parental types, that is, they show some characters and qualities which are in their way somewhat novel, characters not originally possessed by although potentially present in the groups from which the parents have been derived. We have here the emergence of novelty, the emergents of hybrid syntheses, or emergent evolution in process.

It is, indeed, a sad commentary upon the present condition of Western man that when it is a matter of supporting his prejudices, he will distort the facts concerning hybridization so as to cause laws to be instituted making it an offense against the state. But when it comes to making a financial profit out of the scientifically established facts, he will employ geneticists to discover the best means of producing hybrid vigor in order to increase the yield of some commercially exploitable plant or animal product. But should such a geneticist translate his scientific knowledge to the increase of his own happiness and the well-being of his future offspring, by marrying a woman of another color or ethnic group, the probability is that he will be promptly discharged by his employer.[10]

Utilizing the knowledge of hybrid vigor, animal geneticists

10 This has actually occurred in the case of one of the world's leading plant geneticists.

have succeeded in producing offspring that for particular desired characters are in every way superior to the parental stock, while plant geneticists have succeeded, by the same means, in producing enormous increases in sugar cane, corn, fruits, vegetables and other economically important foodstuffs.[11] Such hybrids are not inferior to their parents, but exhibit qualities far superior to those possessed by either of the parental stocks. They are so far from being weakly that they will frequently show, as in the case of certain kinds of maize, an increase in yield between 150 to 200 percent. They are usually larger, stronger, fitter, and better in almost every way than their ancestral parent stocks.

As a rule, hybridization can take place only between the members of the same species, although interspecific crosses and even intergeneric crosses do occasionally occur. The best-known example of an interspecific cross is the mule, which is the hybrid of a cross between the horse (*Equus caballus*) and the donkey or ass (*Equus asinus*). The mule combines most of the good qualities of its parental stocks. From the horse it inherits its speed, size, strength, and spiritedness; from the donkey its sure-footedness, lack of excitability, endurance, and ability to thrive on little food. Because of these qualities it is able to adapt itself to conditions in which both the horse and the donkey would fail. Hence, the mule fetches a higher market price than do animals of either of its parental stocks. The mule, however, is itself sterile. Knowledge of this fact has, perhaps, been responsible for the notion that hybridization generally results in sterility. This is, of course, quite erroneous except, for the most part, in those comparatively rare cases in which interspecific crosses are involved.

All ethnic groups of mankind belong to the same species, and all are mutually fertile, as are the resulting offspring of mating between the members of such groups. The evidence, though by no means conclusive, suggests that among human beings, as among other forms of life, hybrid vigor is most markedly characteristic of the first generation of hybrids. In

11 Crocker, "Botany of the Future," *Science*, LXXXVIII (1938), 391.

the succeeding generations there would appear to be a gradual decline in vigor, possibly owing to the reëstablishment of a relative homozygosity by inbreeding. Thus, one of the principal means of revitalizing any group of living forms is by hybridization, and this is precisely what has occurred, from the earliest times, in man.

For early man, in process of evolution, we have one very clear example of evolution by hybridization in the Neanderthaloid people, whose fossil remains were recently discovered at Mount Carmel in Palestine.[12] The variability presented by the skeletal remains of the Carmelites is such as to render the conclusion inescapable that within a relatively short time before the death of the recovered individuals the group of which they had been members had received an infusion of new genes from some other distinct group.

Inbreeding tends to stabilize the type and in the long run to produce a decrease in vigor. Outbreeding, on the contrary, increases the variability of the type and, at least temporarily, augments its vigor. This is particularly significant in the case of small breeding groups in which the rate of homozygosis is likely to be more rapid than in larger populations. As I have written elsewhere: "Left to themselves relatively small breeding groups, such as the Carmelites, rapidly become homozygous; there is a scattering of variability, and the process which 'race' is, becomes temporarily genetically stable; in man the process generally becomes unstable by the introduction of new genes, by heterozygosis, resulting in a greater variability, until there is again a synthesizing of the new combinations, and the group is once more homozygous according to the new pattern of genetic combinations." [13]

It is in the light of such genetic facts that one is able to say with a high degree of probability that the evidence as presented

[12] For a description of these remains see McCown and Keith, *The Stone Age of Mount Carmel*, Vol. II. For a discussion of the hybridization hypothesis explanatory of the variability of these remains see Montagu's review of the above work under the section "Prehistory" in the *American Anthropologist*, XLII (1940), 518–22.

[13] Montagu, *ibid.*, p. 521.

by the great variability of the skeletal remains of the prehistoric Carmelites indicates relatively recent hybridization.

It has already been suggested that one of the principal agencies in the production of new human types has been in the past, as it is in the present, hybridization. In fact, at all times in man's evolutionary history he has unconsciously conducted his reproductive life in a manner which the professional stockbreeder would undoubtedly pronounce very satisfactory.

Thus, in a treatise on stockbreeding one of America's foremost geneticists, Professor Sewall Wright, summarizes the facts relating to hybridization in these words: "By starting a large number of inbred lines, important hereditary differences in these respects are brought clearly to light and fixed. Crosses among these lines ought to give full recovery of whatever vigor has been lost by inbreeding, and particular crosses may be safely expected to show a combination of desired characters distinctly superior to the original stock, a level which could not have been reached by selection alone. Further improvement is to be sought in a repetition of the process—isolation of new inbred strains from the improved crossbred stock, followed ultimately by crossing and selection of the best crosses for the foundation of the new stock." [14]

This, by and large, is actually the way in which new human ethnic groups and varieties have come into being and evolved. First, by isolation and inbreeding and the action of various selective factors, then, by contact with other groups and crossbreeding with them, followed once more by isolation and inbreeding. This process has, of course, occurred with various degrees of frequency in different human groups, but that it has occurred in some degree in all is certain.

All that we know of the history of mankind points to constant migration and the intermingling of peoples. Today over the greater part of the earth human hybridization is proceeding at vastly more rapid rates than at any previous period in

[14] Wright, *Principles of Live Stock Breeding*, U.S. Department of Agriculture Bulletin, 905 (1920).

the history of man, and a vastly greater number of peoples is being involved in the process at one and the same time. The tragedy, however, is that while the genes combine to produce new types which are often recognizably superior in some traits to their parental stocks and generally novel, the prejudices of men for the most part conspire to render those novel traits worthless and their possessors miserable.

In many parts of the world where colored peoples live under the domination of the white man the hybrid is, by the white man, usually regarded as something of an outcast—"outcast" and "half-caste" being regarded as synonymous terms—an error which if it is to be at all acknowledged, must be viewed with unconcealed disgust. There have been and will continue to be some exceptions to this kind of attitude, but on the whole it will be agreed by those who are at all acquainted with the facts that the hybrid, or mixed-breed, has received a very raw deal at the hands of the whites.

When instead of being ostracized by the whites, hybrid children and adults are given an opportunity to show what they can do, the results have often been so disconcerting to their alleged superiors that everything possible has been done either to suppress or to distort the facts.[15] It is certainly unequivocally clear to those who are capable of viewing the evidence dispassionately that biologically the offspring of mixed unions are, on the whole, *at least* as good human beings in most respects, and better in some, than their parents. Did we not have good reason to believe this from our daily experience

[15] In a recently published textbook of psychology an account is given of a young girl who belongs in the genius class, without any mention being made of the fact that she is the daughter of a Negro father and a white mother. In Los Angeles, in nonsegregated public schools attended by Negro and white children, it was found that 500 Negro children ranked slightly higher in intelligence than the white group in the same schools with whom they were compared. References to such findings are seldom seen or heard. See Clark, *Los Angeles Negro Children*, Educational Research Bulletin, Los Angeles City Schools (1923). An outstanding example of distortion of the facts has recently been provided by Representative May of Kentucky, chairman of the House Military Affairs Committee, who caused the suppression for use by the United States Army of a pamphlet, *The Races of Mankind*, written by two distinguished anthropologists, Professor Ruth Benedict and Dr. Gene Weltfish, of the Department of Anthropology, Columbia University. See pp. 138–41.

of such offspring, we should expect it upon the grounds of such genetic evidence as we have already briefly discussed.

Here we may briefly cite the evidence, such as it is, for existing populations whose mixed ancestry is known and which have been the subject of anthropological studies.

POLYNESIAN-WHITE CROSSES

In the year 1790 nine English sailors and about twelve Tahitian women and eight Tahitian men landed on the isle of Pitcairn in the mid-Pacific. The English sailors were the remnant of the mutineers of the English warship *Bounty* who had made their escape to this lonely island. The story is now well known. What is not so well known is that the descendants of the English mutineers and the Tahitian women are to this day living on Norfolk and Pitcairn Islands. Dr. H. L. Shapiro, who has studied both groups in their island homes, found that the offspring of the initial white-Tahitian unions were very numerous, being 11.4 children per female on Pitcairn and 9.1 on Norfolk Island.[16] A large proportion of these hybrids were long-lived, and they have had unusually long-lived descendants. The modern Norfolk and Pitcairn Islanders are taller than the average Tahitian or Englishman, are more vigorous, robust, and healthy, and mentally they are perfectly alert. The general conclusion is that after five generations of inbreeding these descendants of Polynesian-white unions show little if any diminution of the hybrid vigor of the first generation.

The physical type of the descendants is in every way perfectly harmonious, with white characters predominating. Shapiro concludes:

"This study of race mixture on the whole rather definitely shows that the crossing of two fairly divergent groups leads to a physical vigor and exuberance which equals if not surpasses either parent stock. My study of the Norfolk Islanders

[16] Shapiro, *Descendants of the Mutineers of the Bounty* (Memoirs of the Bernice P. Bishop Museum, Honolulu, 1929, Vol. XI, No. 1) and *The Heritage of the Bounty*.

shows that this superiority is not an ephemeral quality which disappears after the F_1 or F_2 generation, but continues even after five generations. Furthermore, the close inbreeding which the Norfolk hybrids have practiced has not led to physical deterioration.

"This conclusion regarding the physical vigor of the Norfolk hybrids applies also to their social structure, which on Pitcairn was not only superior to the society instituted by the Englishmen themselves, but also contained elements of successful originality and adaptability. Although the Norfolk Island society is much influenced by European contacts, it has maintained itself—a fact which acquires increased significance in view of the deterioration of the fiber of Polynesian life as a result of European influences." [17] This conclusion also holds good for the Pitcairn Islanders.

Perhaps the best effects of human hybridization under favorable social conditions is presented by the character and the achievements of the offspring of Maori-white unions and their descendants in New Zealand. Both physically and culturally the hybrids combine the best features of both ethnic groups.[18] Native as well as hybrid Maoris have shown themselves in every way as capable as the whites, and one Maori has actually been Prime Minister of New Zealand, while several others have been ministers of high rank in its government, achievements rendered possible by the fact that there is virtually no color bar or discrimination of any kind in New Zealand.[19]

AUSTRALIAN-WHITE CROSSES

Social conditions could not be more unfavorable for the offspring of aboriginal-white crosses than they are in Australia, yet all unprejudiced observers agree that the offspring of such crosses represent an excellent physical type and that both

[17] Shapiro, *Descendants of the Mutineers of the Bounty*, p. 69.

[18] Condliffe, *New Zealand in the Making;* Keesing, *The Changing Maori.*

[19] Nash, "Democracy's Goal in Race Relationships—with Special Reference to New Zealand," in Laidler (editor) *The Role of the Races in Our Future Civilization*, pp. 12–16.

the aborigines and the hybrids are possessed of considerable mental ability.[20] There can be little doubt that were the aborigines and half-castes treated as they deserve to be, they would do quite as well as the Maori or any other people. Cecil Cook, the Chief Protector of Aboriginals in the Territory of Northern Australia, in an official report on the subject made to his government in 1933, stated that: "Experience shows that the half-caste girl can, if properly brought up, easily be elevated to a standard where the fact of her marriage to a white will not contribute to his deterioration. On the contrary under conditions in the Territory where such marriages are socially accepted amongst a certain section of the population, the results are more beneficial than otherwise since the deterioration of the white is thereby arrested and the local population is stabilized by the building of homes. It is not to be supposed that such marriages are likely to produce an inferior generation. On the contrary a large proportion of the half-caste female population is derived from the best white stock in the country whilst the aboriginal inheritance brings to the hybrid definite qualities of value—intelligence, stamina, resource, high resistance to the influence of tropical environment and the character of pigmentation which even in high dilution will serve to reduce the at present high incidence of Skin Cancer in the blonde European." [21] The half-caste males are, of course, to be bred back to "full-blood" na-

[20] The evidence for these statements is to be found in a large number of scattered books, periodicals, and newspapers—not usually read by anthropologists. Among these I would particularly draw attention to the following: G. H. Wilkins, *Undiscovered Australia*, pp. 242–62, and the plate opposite p. 256 showing half-caste girls; McLaren, *My Crowded Solitude*, Cecil Cook, *Report of the 27th of June, 1933, by the Chief Protector of Aboriginals in the Northern Territory of Australia;* Terry, *Hidden Wealth and Hiding People;* Idriess, *Over the Range;* Bates, *The Passing of the Aborigines;* J. R. B. Love, *Stone Age Bushmen of To-Day*, London, Blackie, 1936; Porteous, *The Psychology of a Primitive People;* Montagu, *Coming into Being among the Australian Aborigines;* Lefroy, "Australian Aborigines; a Noble Hearted Race," *Contemporary Review*, CXXXV (1929), 22; Eleanor Dark, *The Timeless Land*, New York, Macmillan, 1941. Herbert, *Capricornia*.

[21] Cook, *Report of the 27th of June, 1933, by the Chief Protector of Aboriginals in the Northern Territory of Australia;* reprinted in the *Report of the Commission on Mixed Marriages in South Africa*, Pretoria, 1939, p. 52.

tive women. From Dr. Cook's report it is very evident that the half-caste, in the Northern Territory at least, is considerably advantaged by his biological heritage. This is undoubtedly true of all half-castes in Australia.[22] In terms that Western peoples readily understand, such facts as the following should not be unimpressive.

Writing in 1899, the Rev. John Mathew states: "In schools, it has often been observed that aboriginal children learn quite as easily and rapidly as children of European parents. In fact, the aboriginal school at Ramahyuck, in Victoria, stood for three consecutive years the highest of all state schools of the colony in examination results, obtaining *one hundred per cent of marks.*" [23]

In May, 1926, a pure aboriginal, Jacob Harris, defeated the draughts (checkers) champions of New South Wales and Western Australia, being himself subsequently defeated by the champion of Victoria. This aboriginal had learned the game at the Mission Station by watching over the shoulders of the players and was entirely self-instructed.[24]

Tindale, who has recently completed a survey of the half-caste problem in Australia, cites a number of cases which suggest that hybrid vigor is the rule in aboriginal-white crosses. Tindale also gives it as his opinion that the reproductive and survival rates of the latter are probably higher than among whites. He concludes: "There seems little evidence to indicate that the difficulties of adjustment mixed breeds may have at present are particularly the result of marked ethnic inferiority. Physically many are of fine type, and have shown their physical superiority for example in sports such as running, football and boxing—their disabilities seem to be lack of education and home-training and the discouragement implicit in belonging to an outcast stock. There may be no mixed blood

22 Tindale, "Survey of the Half-Caste Problem in South Australia," *Proceedings of the Royal Geographical Society, South Australian Branch,* session 1940–41, pp. 66–161.

23 Mathew, Eaglehawk and Crow, p. 78. Mathew's italics.

24 Reported in the *Daily Express* (London), 27 May, 1926; see note 4, p. 11, in Ashley Montagu, *Coming into Being.*

geniuses, but there are also on the other hand relatively few of markedly inferior mental calibre. The majority are of a mediocre type, often but little inferior to the inhabitants of small white communities which have, through force of circumstances remained in poverty, ignorance or isolation." [25]

ETHNIC MIXTURE IN HAWAII

Hawaii has afforded investigators an excellent opportunity for the study of the effects of the mixture of different ethnic groups. Here native Hawaiians, who are, of course, Polynesians, have intermixed with whites of many nationalities—Japanese, Filipinos, Koreans, Puerto Ricans, and others. All these have intermixed with each other, so that in Hawaii there are literally hundreds of varieties of mixed types. They are all in process of amalgamating, and it is likely that in the future the people of Hawaii will become a more or less distinctive ethnic group. In Hawaii is being repeated what has undoubtedly taken place on both greater and lesser scales innumerable times elsewhere in the world.

Here the evidence is clear that the descendants of the mixed Hawaiian unions are in many ways superior to their Hawaiian and non-Hawaiian progenitors. The part-Hawaiians have a much higher fertility rate than all other ethnic groups, and they are more robust, while in height, weight, and in their physical characters, as well as mental characters, they appear to be intermediate between their Hawaiian and non-Hawaiian forbears.[26] The native Hawaiian is inclined to be overheavy, a disadvantageous trait which tends to be reduced in the part-Hawaiian. The distribution of physical traits in the crosses follow the Mendelian laws of segregation and of independent assortment. That is to say, the children of crosses of the same ethnic groups, in a single family, segregate in their characters—some around the parents, while others resemble

[25] Tindale, "Survey of the Half-Caste Problem in South Australia," *Proceedings of the Royal Geographical Society, South Australian Branch*, session 1940–41, p. 124.

[26] Krauss, "Race Crossing in Hawaii," *Journal of Heredity*, XXXII (1941), 371–78; Adams, *Interracial Marriage in Hawaii*, pp. 232–35.

the stocks of the grandparents; furthermore, it has been observed that single hereditary characters are often inherited independently of each other.

As a result of six years of intensive study of the Hawaiian population, Dr. William Krauss has shown that not the slightest evidence of any disharmonies are to be found in the hybrids or their descendants and that while there is no particular evidence of hybrid vigor, the mixed offspring are in every way satisfactory physical and mental types.[27]

Throughout Oceania, including the islands of Melanesia and Polynesia, aboriginal-white hybridization has been proceeding for some centuries.[28] Handy, a careful student of Oceanic affairs, declares that throughout Polynesia the mixed breed "is one of the greatest assets which govern a community, both white and native phases," and that the mixed breed is "one of the most solid bonds between the white and the native." [29] This is also the conclusion stated by Krauss for the special case of Hawaii.

ETHNIC MIXTURE BETWEEN INDIANS AND WHITES

In 1894 Professor Franz Boas published the results of a pioneer study on the "half-blood" Indian, in which he showed that the latter was taller and more fertile than the parental Indian and white stocks. In many of his physical characters, as was to be expected, the hybrid Indian presented an intermediate appearance.[30] Since increase in stature and in fertility

[27] Krauss, *ibid.* Consult further Reece, "Race Mingling in Hawaii," *American Journal of Science*, XX (1914), 104–16; Finch, "The Effects of Racial Miscegenation," in *Papers on Inter-Racial Problems*, pp. 108–12; Hoffman, "Miscegenation in Hawaii," *Journal of Heredity*, VIII (1917), 12 ff.; Dunn and Tozzer," An Anthropometric Study of Hawaiians of Pure and Mixed Blood," *Papers of the Peabody Museum of Harvard University*, XI (1928), 90–211; Wissler, "Growth of Children in Hawaii Based on Observations by Louis R. Sullivan," *Bernice P Bishop Museum Memoirs*, pp. 105–207. For a discordant view see MacCaughey, "Race Mixture in Hawaii," *Journal of Heredity*, X 1919), 41–47 and 90–95.

[28] For an account of some of these cases see Dover, *Half-Caste*, pp. 176–87

[29] Handy, quoted by Keesing.

[30] Boas, "The Half Blood Indian an Anthropometric Study," *Popular Science Monthly*, XIV (1894), 761–70, reprinted in Boas, *Race, Language and Culture*, pp 138–48

are among the most characteristic marks of hybrid vigor throughout the plant and animal kingdoms, it seems clear that the hybrid offspring of Indian-white crosses showed the evidences of hybrid vigor. A similar conclusion is to be drawn from Sullivan's analysis of Boas's data on mixed and unmixed Siouan tribes.[81]

In a study of Indian-white crosses in northern Ontario, involving Ojibway Indians, Cree Indians, Frenchmen, and Englishmen, Ruggles Gates found the descendants to be of an admirably hardy type. "They appear to have the hardiness of the native Indians combined with greater initiative and enterprise than the pure Indian would ever show. . . . They push the fringe of civilization farther north than it would otherwise extend, and help to people a territory which would otherwise be nearly empty." The evidence derived from this study, the author concludes, "serves to show that an intermediate race may be more progressively adapted to the particular conditions than either of the races from which it sprang." [82]

Williams's study of Maya-Spanish crosses in Yucatan, where much crossing and recrossing has gone on for almost four centuries, shows that after some twelve or thirteen generations the Maya-Spanish population, judged by any standard of biological fitness, is a vigorously healthy one.[83]

Goldstein's observations on the *mestizo* population of Mexico, which is largely a mixture of American Indian and Spanish, show that the *mestizos* are taller than the original parental stocks and more fertile. They are in every way a thoroughly vigorous group biologically, in spite of the debilitating effects of chronic poverty and primitive living conditions.[84]

The tri-hybrid Seminole Indians of Oklahoma are, as is well known, the recent descendants of a mixture between runaway

[81] Sullivan, "Anthropometry of Siouan Tribes," *Proceedings of the National Academy of Sciences*, VI (1920), 131–34.

[82] Gates, "A Pedigree Study of Amerindian Crosses in Canada," *J. Royal Anthrop. Inst.*, LVIII (1928), 530.

[83] Williams, "Maya-Spanish Crosses in Yucatan," *Papers of the Peabody Museum of American Archæology and Ethnology*, XIII (1931), 1–256.

[84] Goldstein, *Demographic and Bodily Changes in Descendants of Mexican Immigrants.*

Creek Indians, Negro slaves, and whites. The Oklahoma Seminoles have never been studied from the point of view of ethnic mixture, but they have been studied anthropometrically as a single population by Krogman.[35] From Krogman's observations and those of his coworkers it is evident that the modern Seminole population exhibits, in varying degrees, the characters of all three ancestral types which have gone into its making. The physical types are, on the whole, good, and they are often very beautiful; there is not the slightest evidence of degeneration or disharmony in development.

The same is to be said of the recently described Moors and Nanticokes of Delaware, who are likewise the descendants of Indian, Negro, and white admixture. Furthermore, these two groups have been inbreeding for more than two centuries with no observable ill effects; on the contrary, they appear to be a very hardy group indeed, who have managed to make a place for themselves under the most untoward conditions which have been forced upon them by their exceedingly "white Christian" neighbors.[36]

NEGRO-WHITE CROSSES

The American Negro is, of course, the most obvious and best-known example of the Negro-white cross. Because of the extreme differences in pigmentation, hair color and form, nose form, and eye color, the offspring of Negro-white unions and of their descendants, afford scientists an excellent opportunity of judging the effects of such hybridization and shuffling and reshuffling of genes. The studies of Herskovits on the American Negro[37] and of Davenport and Steggerda on the Jamaican Negro[38] conclusively show that in his physical characters the mixed-breed Negro stands intermediate between the stocks which generated him. In the American Negro, to be brief, we are developing a distinctively new ethnic type.

[35] Krogman, *The Physical Anthropology of the Seminole Indians.*
[36] Weslager, *Delaware's Forgotten Folk.*
[37] Herskovits, *The American Negro* and *The Anthropometry of the American Negro.*
[38] Davenport and Steggerda, *Race Crossing in Jamaica.*

This type, there is every reason to believe, is a perfectly good one by the measure of biological goodness or fitness, that is to say, by the measure of the organism's ability to meet successfully every demand of its environment—an ability testified to by the fact that in the course of a century and a half the Negro population has increased by thirteen times its original number.

Davenport has made the claim that hybridization sometimes produces disharmonies, and he has also asserted that he has discovered such disharmonies in some of the mixed Jamaicans who were examined and measured by Steggerda. In a work in which a simple table can be headed "Traits in Which Browns Are *Inferior* to Blacks and Whites," when the word "intermediate" would more accurately have described the facts recorded in the table, one is not surprised to discover that the findings upon which this assertion rests have been most strangely exaggerated. More revealing of Davenport's attitude of mind are the following remarks, which surely deserve a prize for something or other. Davenport writes, "the Blacks seem to do better in simple mental arithmetic and with numerical series than the Whites. They also follow better complicated directions for doing things. It seems a plausible hypothesis, for which there is considerable support, that the more complicated a brain, the more numerous its 'association fibers,' the less satisfactorily it performs the simple numerical problems which a calculating machine does so quickly and accurately." [39] Even though reason be outraged at this running with the hare and hunting with the hound the Blacks cannot be allowed the virtues of their qualities!

It appears that some hybrid individuals showed a combination of "long arms and short legs." "We do not know," writes Davenport, "whether the disharmony of long arms and short legs is a disadvantageous one for the individuals under consideration. A long-legged, short-armed person has, indeed, to stoop more to pick up a thing on the ground than one with

[39] Davenport and Steggerda, *Race Crossing in Jamaica*, p. 469.

the opposite combination of disharmony in the appendages." [40]

Three out of four brown (hybrid) Jamaicans are cited in support of this generalization, a generalization which is made by Davenport as if it applied to his own findings on the Jamaican browns as compared to the Jamaican blacks and whites.

Professor H. S. Jennings adopted this generalization and made it part of the basis of a discussion on the possible ill-effects of hybridization which constitutes the only unsatisfactory section in an otherwise admirable book.[41]

Professor W. E. Castle has very cogently disposed of both Jennings's and Davenport's generalizations by stating the plain facts as represented by Davenport and Steggerda's own figures. Here are the figures:

LIMB PROPORTIONS AND STATURE IN JAMAICANS

	Black	*Brown*	*White*
Leg length in cm.	92.5 ± 0.4	92.3 ± 0.3	92.0 ± 0.4
Arm length in cm.	57.3 ± 0.3	57.9 ± 0.2	56.8 ± 0.4
Total stature in cm.	170.6 ± 0.6	170.2 ± 0.5	127.7 ± 0.7

It will be seen from these figures that the arm length of the browns is six tenths of a centimeter greater than in blacks and 1.1 centimeters greater than in whites, and the leg length of the browns is three tenths of a centimeter less than in blacks. It is here that the alleged disharmony is presumably to be found. Now, it should be obvious that the order of the differences is so small—at most not more than 8 millimeters between brown and white—that it could not make the slightest practical difference in the efficiency of stooping.

40 *Ibid.*, p. 471.

41 Jennings, *The Biological Basis of Human Nature*, p. 280. Jennings has somewhat modified this in his *Genetics*, p. 280. The same comment may be made on Jennings's "Laws of Heredity and Our Present Knowledge of Human Genetics on the Material Side," in *Scientific Aspects of the Race Problem*, pp. 71–72.

As Castle has said: "We like to think of the Negro as an inferior. We like to think of Negro-white crosses as a degradation of the white race. We look for evidence in support of the idea and try to persuade ourselves that we have found it even when the resemblance is very slight. The honestly made records of Davenport and Steggerda tell a very different story about hybrid Jamaicans from that which Davenport and Jennings tell about them in broad sweeping statements. The former will never reach the ears of eugenics propagandists and Congressional committees; the latter will be with us as the bogey men of pure-race enthusiasts for the next hundred years." [42]

In a study of the offspring of Negro-white unions made in the seaports of England and Wales, Fleming found that 10 percent of the hybrids showed a disharmonic pre- or post-normal occlusion of teeth and jaws. The palate was generally well-arched, while the lower jaw was V-shaped and the lower teeth slipped up outside the upper lip, seriously interfering with speech; this disharmony "resulting where a well arched jaw was inherited from the Negro side and a badly arched one from the white side." [43] No other "disharmonies" were observed.

Fleming states that a "badly arched" jaw was inherited from the white side.

[42] Castle, "Race Mixture and Physical Disharmonies," *Science*, LXXI (1930), 603–6. Davenport has replied to this: "We certainly never drew the conclusion that the Negro-white cross is inferior to the Negro or the whites; but we did find some cases of browns that seemed to present greater extremes—and sometimes less well-adjusted extremes—than either of the parental races. Our conclusion is not as Castle suggests it is, that the browns 'are a degradation of the white race.' Our conclusion is given at p. 477: 'While, on the average, the Browns are intermediate in proportions and mental capacities between Whites and Blacks, and although some of the Browns are equal to the best of the Blacks in one or more traits still among the browns there appear to be an excessive per cent, over random expectation who seem not to be able to utilize their native endowment.'" "Some Criticisms of 'Race Crossing in Jamaica,'" *Science*, LXXII (1930), 501–2. In another paper written in the same year Davenport expresses himself quite clearly on the matter of Negro-white crosses. These, he writes, seem to be "of a type that should be avoided." "The Mingling of Races," in *Human Biology and Racial Welfare*, p. 565.

[43] Fleming, "Physical Heredity in Human Hybrids," *Annals of Eugenics*, IX (1939), 68.

What, precisely, this means is not clear, but it is clear that such disharmonies were limited to only 10 percent of the cases. It is also probable that some of these cases merely represent the expression of inherited defects, not necessarily exhibited in the jaws of the parents themselves, and that the defect actually bears no relation whatever to the fact that one parent was a Negro and the other a white. If this were not so, it would be expected that more than 10 percent of the hybrids would exhibit "disharmonies" of occlusion.

The present writer is fully convinced that the whole notion of disharmony as a result of ethnic crossing is a pure myth. Certainly there is some evidence of occasional asymmetric inheritance in hybrids, but this is so rare that I doubt whether such asymmetries occur any less frequently in the general population than they do among hybrids. The fact seems to be that the differences between human groups are not extreme enough to be capable of producing any disharmonies whatsoever.

As a typical example of the loose kind of speculative argumentation which has marred the discussion of human hybridization, reference may be made to the latest pronouncement upon the subject. This is from the pen of the late Professor Charles Stockard, an anatomist who for many years lived in the "black belt" of the South. In an elaborate work calculated to throw some light upon the effects of hybridization among dogs, Stockard writes as follows:

"Since prehistoric time, hybrid breedings of many kinds have occurred at random among the different races of human beings. Such race crossings may have tended to stimulate mutations and genic instability, thus bringing about freak reactions and functional disharmonies just as are found to occur among dogs. The chief difference has been that in dogs a master hand has selected the freak individuals according to fancy and purified them into the various dog breeds. No such force regulates the mongrel mixing of human beings, and dwarf, giant, achondroplastic and acromegalic tendencies have not been selected out or established in pure form. On the con-

trary, individuals carrying different degrees of these tendencies are constantly being absorbed into the general human stock, possibly to render the hybridized races less stable and less harmonious in their structural and functional complexes than were the original races from which they were derived. Mongrelization among widely different human stocks has very probably caused the degradation and even the elimination of certain human groups; the extinction of several ancient stocks has apparently followed very closely the extensive absorption of alien slaves. If one considers the histories of some of the south European and Asia-Minor countries from a strictly biological and genetic point of view, a very definite correlation between the amalgamation of the whites and the Negroid slaves and the loss of intellectual and social power in the population will be found. The so-called dark ages followed a brilliant antiquity just after the completion of such mongrel amalgamation. Contrary to much biological evidence on the effects of hybridization, racially prejudiced persons, among them several anthropologists, deny the probability of such results from race hybridization in man." [44]

By "some of the south European and Asia-Minor countries" Stockard presumably means some of the lands bordering upon the Mediterranean Sea, extending from Portugal and Spain on the west to Turkey on the east. Now, the only lands in this region in which any appreciable "absorption of alien slaves" has occurred are Portugal and Spain. What are the facts? Interestingly enough, while the population of the Iberian peninsula are of exceedingly complex descent, North African Negroes have, from the earliest times, made only a relatively minor contribution to that descent. Phoenicians, Celts, Romans, Carthaginians, Teutons, Goths, Normans, Moors of Arab and Berber origin, and Jews, together with North African and some West African Negroes, have in various regions in differing numbers gone into the making of the populations

[44] Stockard, *The Genetic and Endocrine Basis for Differences in Form and Behavior*, pp. 37–38. For an excellent independent criticism of Stockard's views see Lipschütz, *El indioamericanismo y el problema racial en las Américas*, pp. 268–79.

of the Iberian peninsula. Far more Negroes were absorbed into some of those populations in prehistoric times than have been since, and Negro genes were probably more widely distributed throughout the populations of Spain and Portugal when both these nations were at the height of their power than were absorbed by them after they had embarked upon the slave trade in the middle of the fifteenth century.

On the basis of such reasoning as Stockard's, the people of Portugal and Spain should never have been capable of attaining to anything like the degree of civilization which characterized them up to the middle of the seventeenth century, if Negro genes could possibly exert a deleterious effect upon a population and its cultural activities. In reality the absorption or nonabsorption of Negro genes had nothing whatever to do with the yielding to others of the political and social leadership which Portugal and Spain had maintained in Europe. An unprejudiced review of the evidence will show that this was entirely due to the far-reaching changes in the political and social fortunes of Europe as a whole, changes over which neither of these nations was in a position to exercise the least control, and also to the peculiar social and economic organization of the peoples of the Iberian peninsula itself.[45] The loss of the Spanish Armada, for example, seriously undermined both the power and the prestige of Spain. The fortunate intervention of a storm saved Britain from being reduced to a vassal power and almost instantly reversed the fortunes and status of the two nations. Did genes have anything to do with the storm? No doubt there are some who would maintain that they did.

Another case in point, to which Stockard does *not* refer, is ancient Greece. The civilization of ancient Greece was, all the evidence indicates, the creation of a highly hybridized people. The cranial[46] and cultural[47] evidence leaves little

[45] For an illuminating discussion of this see Brenan, *The Spanish Labyrinth.*

[46] For a recent analysis see Angel, "Report on the Skeletons Excavated at Olynthus," in Robinson, *Excavations at Olynthus,* and "A Racial Analysis of the Ancient Greeks," *Amer. J. Phys., Anthrop.,* N.S., II (1944), 329–76.

[47] Myres, *Who Were the Greeks?*

doubt of that. The opponents of "mongrelization" would, no doubt, maintain that the ethnic elements which entered into the making of the Greeks were of a "desirable" type. But by what standard is desirability to be measured? Madison Grant would most certainly not have approved of some of the elements which entered into the ancestry of Socrates, Plato, Aristotle, and Pericles. It is highly probable that these were at least partly of Mediterranean origin, not to mention the possibility of Eurafrican and Alpine elements. It should be clear that any judgment of desirability must be made on the objective basis of the results of hybridization, and the facts suggest that there is no form of human hybridization which by objective biological standards is undesirable. Those who take the opposite view have thus far been unable to produce any evidence in support of their thesis which would withstand a moment's critical examination.

In individual cases certain unfavorable combinations of characters may occur, but such combinations are no more frequent under conditions of hybridization than they are under the opposite conditions. The point is that human populations are not, like the plants or dogs which the geneticist crosses, even relatively pure-bred lines or species. The peoples of the earth are not sufficiently different from one another to produce the types of extreme or undesirable characters which are sometimes produced in plant and animal crosses of various sorts. The differences between men are simply not extreme enough, a truth which is itself proven by the fact of daily experience that the offspring of unions between members of different ethnic groups show no more disharmonious or undesirable characters than do offspring of unions between members of the same ethnic group. The determining factor in the organization of the new being, the offspring of any union, is the genetic constitution of the parents, and nothing else. Since the evidence leads us to believe that no human group is either better or worse than any other, it should be obvious that hybridization between human beings cannot lead to anything but an harmonious biological development.

When we turn from Stockard's *obiter dicta* on hybridization to his experimental work, we discover that this suffers from the serious defect that many of his experimental animals represented highly selected artificial strains, some of which were hereditary defectives; such, for example, are the dachshund, the bulldog, and the pekingese. The crossing of such defective stocks with normal breeds of dogs will certainly result in a number of defective offspring, and there will generally be no more disharmony than was present in the original defective progenitor. To jump from such an effect to the general supposition that "race crossings may have tended to stimulate mutations and genic instability, thus bringing about freak reactions and functional disharmonies just as are found to occur among dogs," is to abandon the last vestiges of scientific procedure for the hobbyhorse of irresponsibility.

In the first place, under normal conditions such defective animals would have become extinct within a very short time, since they could not possibly compete with normal animals. And in the second place, even if the survival of such animals could be imagined, such defects as they transmitted would be due, not to "race" crossing, but simply to the fact that at least one of the animals involved was defective. It is not "race" crossing that is the cause of the defect in the offspring, but the fact that one of the parents was a defective to begin with. As Castle has written in this connection: "Suppose that a white man who was affected with Huntington's chorea should marry a Negro woman and half their children should prove to be choreic (as in all probability they would), could we ascribe this unfortunate occurrence to race mixture? By no means, the same result would have followed had the wife been a white woman." [48]

To associate defectiveness with any "race" of which he himself is not a member is a common device of the racist, but in fact represents no more than a vicious invention which is thoroughly controverted by the facts.

[48] Castle, "Race Mixture and Physical Disharmonies," *Science*, LXXI (1930), 604.

An unprejudiced examination of the American Negro as a biological type [49] abundantly proves that he meets every test of biological fitness, while his vitality as measured by reproductive rates under adverse conditions exceeds that of the white population.[50]

The classical study of the descendants of Negroid-white mixtures is that made at the beginning of this century by Eugen Fischer on the Rehoboth Bastaards of South Africa. They are represented by some three thousand individuals who are the descendants principally of Dutch and Low German peasant mixtures with Hottentot women.

If we were asked to name the two human types which would seem to stand at opposite extremes physically, we should have to place the Hottentot at one end and the white at the other. The Hottentot is very short, has peppercorn hair, is quite glabrous, yellowish, and loosely skinned, steatopygious, and in many cases characterized by the epicanthic fold commonly seen in Mongols. If disharmonies were likely to occur anywhere, we should expect to find them here; the fact is, however, that the Bastaards are an admirably and harmoniously developed people who show all the evidences of hybrid vigor most strikingly. They are taller than their parental stocks and considerably more fertile.[51]

These observations are more fully confirmed on a much larger variety of the inhabitants of South Africa by Lotsy and Goddijn. These investigators studied the crosses of Bushmen, Basutoes, Fingoes, Kaffirs, Mongoloids, Indians, whites, and many others, and their evidence unequivocally points to hybrid vigor and perfectly harmonious and often strikingly beautiful types as the result of such crossings.[52]

[49] Lewis, *The Biology of the Negro;* Cobb, "The Physical Constitution of the American Negro," *Journal of Negro Education,* III (1934), 340–88; Myrdal, *An American Dilemma,* pp. 137–53. See also Chapter XIII of the present volume.

[50] Holmes, *The Negro's Struggle for Survival;* Lewis, *The Biology of the Negro;* Myrdal, *An American Dilemma,* pp. 157–81.

[51] Fischer, *Die Rehobother Bastards und das Bastardierungsproblem beim Menschen.*

[52] Lotsy and Goddijn, "Voyages of Exploration to Judge of the Bearing of Hybridization upon Evolution. I. South Africa," *Genetica,* X (1928), viii–315.

In Brazil crossing between Negroes and whites has been going on for four hundred years. The population has increased by leaps and bounds, and the physical type of the descendants of such crosses is in every respect biologically and socially desirable. Innumerable Brazilians of mixed ancestry have attained the highest distinction in every walk of life.[53] Similarly in Cuba, where conditions somewhat approximate those existing in Brazil, the descendants of Negro-white crosses are generally recognized to be of particularly fine physical type and socially among the most progressive.[54]

MONGOLOID-WHITE CROSSES

Rodenwaldt, in a study of the Mongoloid Indonesian native-white hybrids of the island of Kisar in the Timor archipelago found some evidence of hybrid vigor and no evidence of disharmony. In their physical and cultural characters the Kisarese were intermediate between the natives and the whites and considerably more fertile than either.[55]

CHINESE-WHITE CROSSES

Fleming examined 119 children who were the offspring of Chinese fathers and white mothers. In only one instance was there any evidence of any asymmetric or disharmonious physical character in the hybrid. In a fourteen-year-old boy "One orbit was Chinese in shape, the eye dark opaque brown and the Mongoloid fold marked. The other orbit was English in type, eye colour the grey with a brown net so common in English people, and there was no Mongolian fold." [56] Such abnormalities of inheritance are obviously extremely rare, as is suggested both by Fleming's findings and experience.

Japanese-white, Malayan-white, East Indian and white,

[53] Roquette-Pinto, "Contribuicão a anthropologia do Brasil," *Revista de Imigracão e Colonizacão*, III (1940); Pierson, *Negroes in Brazil;* Bilden, "Racial Mixture in Latin America—with Special Reference to Brazil," in (Laidler, editor) *The Role of the Races in Our Future Civilization*, pp. 49–54.

[54] Personal communication of Professor Angulo y Gonzalez.

[55] Rodenwaldt, *Die Mestizen auf Kisar.*

[56] Fleming, "Physical Heredity among Human Hybrids," *Annals of Eugenics*, IX (1939), 59.

Arab-white, and Egyptian-white crosses, have not been at all thoroughly studied, but such evidence as we have indicates very strongly that the hybrids and the mixed-breeds resulting from these mixtures are in every way satisfactory types.[57]

The evidence here briefly summarized very definitely indicates that human hybridization and ethnic mixture leads, on the whole, to effects which are advantageous to the offspring and to the group. Harmful effects, physical disharmonies of various alleged kinds, are of the greatest rarity, and degeneracies do not occur.

In this connection it has often been said that one cannot get out of a mixture more than one puts into it. This is one of those facile generalizations which are too easily accepted by the uncritical. When we combine oxygen and hydrogen, we obtain water, which is more than each of the two elements alone could yield. When we combine tin and copper, we obtain an alloy, bronze, which has far greater strength and numerous other superior qualities than the unalloyed metals comprising it; that is certainly getting more out of a mixture than what was put into it. When two pure-bred varieties of plants or animals unite to produce offspring, the latter often show many more desirable qualities and characters than the stocks from which they were derived. Surely "hybrid vigor" represents the fact that something more has been obtained out of the mixture of the elements that were originally brought into association? To maintain the contrary would be to subscribe to a genetic fallacy. All offspring of unions between human beings represent the expression of a unique contribution of genes. Some of these combinations may result in individuals superior or inferior or similar to the parents, but invariably one always obtains something different out of the mixture than what originally entered into it.

As Nabours has put it: "In a considerable number of hybrids, to be sure, especially among the higher animals and man, some of the respective characteristics may be blended or arranged in mosaics in such manner as to indicate certain

[57] *Ibid.;* see also Dover, *Half-Caste.*

: the qualities of the component races. Even so, such com-
)sites generally exhibit, in addition, qualities extraneous to
ıy shown by the original organisms, and at the same time
ıme of the properties of the latter are lost in the process. In
ıis category probably belongs the mulatto, many of whose
ıalities, in spite of certain degrees of blending, are super-
ɜniently different from the mere sum or mosaic of the several
ıaracteristics of the white and black races. The respective
roperties of the ass and horse would not, by simple addition,
· mosaically, make a mule, and the cattalo is far from display-
ıg nothing but the sum or mosaics of the several attributes of
uffalo and cattle. Nearly all the higher plants and animals
hen hybridized—and which are not?—exhibit extraneous
ualities such that they largely, or completely effect the dis-
militude of the qualities of their several, contributive, pri-
.ary races." [58]

All this, of course, does *not* mean that the emergent is inde-
ɜndent of the genes that have entered into its making; it is,
ı fact, upon the genes contributed by each parent that, other
)nditions being equal, the combinations into which they en-
:r to create the new individual will depend.

Now it must be remembered that gene distributions are not
› much a matter of the distribution of the genes of individ-
als as of the distribution of genes within populations. It is
ot, therefore, a matter of speaking in terms of two individ-
als who, characterized by either a superior or a mediocre
ısortment of genes, transmit them to their offspring, but of
ıe continuous interchange and shuffling and reshuffling of
⁄ery kind of gene within a population to yield a very large
umber of gene combinations. Some of these will be superior
› others; in fact, there will be every possible form of varia-
on within the limits set by the genetic equipment of the
opulation. This is true of all populations. No population
as a monopoly of good genes, and no population has a mo-
opoly of bad genes; normal and defective genes are found
ı all populations of all human beings. Furthermore, it is

[58] Nabours, "Emergent Evolution and Hybridism," *Science*, LXXI (1930), 374.

most unlikely that the kind of defective genes distributed in one population will be found to occur in anything like as great a frequency, if at all, in another population or ethnic group.

As Jennings writes: "In view of the immense number of genes carried by individuals of each race, and their separate history up to the time of the cross, the relatively few defects that have arisen are almost certain to affect genes of different pairs in the two. Hence when the races cross, the individuals produced will receive a normal gene from one parent or the other in most of their gene pairs; and since the normal gene usually manifests its effect, the offspring of the cross will have fewer gene defects than either of the parents." [59] In a later work Jennings adds: "Thus the offspring of diverse races may be expected to be superior in vigor, and presumably in other characteristics. . . . Data on this point are not abundant, but it is probable that hybrid vigor is an important and advantageous feature of race crosses in man." [60]

Furthermore, genes peculiar to each group are contributed by the parents to the offspring, and these genes express themselves in new traits and characters not possessed by either of the parents or their stocks. It is in this process that the creative power of "race" mixture shows itself.

The fact is that all the ethnic groups and varieties of mankind are characterized by biologically fit qualities; were this not so, they could not possibly have survived to the present time. Hence, when they are crossed, it is not surprising that the hybrids should show qualities which are capable of passing every test of biological fitness and efficiency. True hybrids are, of course, only the first filial generation of crosses; but since all human hybrids are polyhybrids—that is, hybrid for a very large number of genes—hybridization in mixed human

[59] Jennings, *The Biological Basis of Human Nature,* p. 280.

[60] Jennings, "The Laws of Heredity and Our Present Knowledge of Human Genetics on the Material Side," in *Scientific Aspects of the Race Problem,* p. 71. As "probable" disadvantages of "race" crossing Jennings refers to Davenport and Steggerda's inferences from their observations on Jamaican white and Negro crosses. Jennings, however, admits that "critical and unambiguous data on this matter are difficult to obtain for man," p. 72.

populations will often extend over a period of many generations. Thus, because of such polyhybridization over several generations, the tendency will be to add more and more new genes to the common stock and for a considerable number of generations (depending upon the size of the population) to maintain a high degree of variability or heterogeneity. Certainly some poor combinations of genes will occur in individual cases, resulting in some mediocre individuals, but these will take their chances with the rest, contributing perhaps a genius or two, or perhaps a few politicians, to the population before passing on their way or else being selectively eliminated.

Ernst Kretschmer, the great student of human constitutional typology, found in his study of genius that most geniuses were of mixed ethnic ancestry.[61] He goes on to say: "One may assume, with some probability, that the rise of lofty civilizations, blossoming with genius, at other times and in other races and nations, was caused by a similar biological process of cross-breeding. For in individual human biology too, suitable cross-breeding gives rise to richly-developed 'hybrids' who easily outgrow the parental types from which they have sprung. The breeding of genius is thus assimilated to the same process which, in specialist biology, is known as the 'luxuriation' of hybrids [hybrid vigor]. Hence highly developed civilizations are usually produced within a definite time interval after the migrations of peoples and the invasions of conquering tribes which have gradually mixed themselves with the native populations." [62]

Kretschmer points out that it is an error to assume that the immigrating or invading group, as such, has brought genius with it, but rather that the blossoming of a new civilization is due to hybridization alone. This view would, however, tend to make the progress of culture dependent on biological fac-

[61] Before this two geneticists, East and Jones, had stated that "the great individuals of Europe, the leaders in thought, have come in greater numbers from peoples having very large amounts of ethnic mixture." *Inbreeding and Outbreeding*, p. 99.

[62] Kretschmer, *The Psychology of Men of Genius*, p. 99.

tors, whereas it should be evident that it is cultural hybridization, not biological hybridization, which is principally, if not entirely, responsible for such blossomings of culture.

The more unlike two human mating groups are genetically, the more likely it is that for many characters the hybrid offspring will be superior to either of the parental groups and will be a mosaic of their characters for the rest. It is far less likely that the offspring of such matings will exhibit anything like the frequency of defective characters which occurs in matings between members of the same ethnic group. This is due to the fact that most defective genes are carried in the recessive state and are more likely to be matched within the carrier's own ethnic group than in some other. Furthermore, genes for certain desirable characters unique to different ethnic groups are, of course, carried in the dominant state, and the offspring of such crosses will show the effects of the combination of these genes not only in the expression of certain characters of the parental stocks but also in others which are themselves unique.

While it may be true of plants that in some cases hybrids will combine many of the undesirable traits of both parental stocks, the traits of human beings over a large area of the globe are such that, when under hybridization they do combine, there appears to be a gain on the whole rather than a loss in biological fitness. This is a fact which has not been sufficiently emphasized, and it is one of the first importance. It would seem that all the ethnic groups of mankind possess qualities which under hybridization result, on the whole, in the emergence of novel and biologically fit types, not in reversionary unfit ones. The latter types are very definitely the rare exceptions, which in the course of time are naturally eliminated; the former survive and reproduce not only their kind but also, again under conditions of hybridization, new kinds.

It will be seen, then, that the beliefs relating to the alleged harmfulness of human hybridization are quite erroneous and that they constitute a part of the great mythology of "race." The truth is that ethnic group mixture constitutes one of the

greatest creative powers in the progress of mankind. Professor F. H. Hankins has written that "in the ever-changing texture of racial qualities and the infinite combinations still to be made there may in the future arise race blends quite as excellent as those which produced the Age of Pericles, the wonderful thirteenth century, the Renaissance, or the present era in European civilization." [63] It is possible to go even farther than this and say that the future will see race blends not only "quite as excellent," but also undoubtedly greatly superior to those referred to. Superior in the very real sense that they will lack many of the defective qualities of which all ethnic groups are today more or less carriers.

We may conclude in the words of a great American biologist: "So far as a biologist can see, human race problems are not biological problems any more than rabbit crosses are social problems. The rabbit breeder does not cross his selected races of rabbits unless he desires to improve upon what he has. The sociologist who is satisfied with human society as now constituted may reasonably decry race crossing. But let him do so on social grounds only. He will wait in vain, if he waits to see mixed races vanish from any biological unfitness." [64]

[63] Hankins, *The Racial Basis of Civilization,* p. 351. This work contains an excellent discussion of "race" mixture.

[64] Castle, "Biological and Social Consequences of Race Crossing," *Amer. J. Phys. Anthrop.,* IX (1926), 156.

9

EUGENICS, GENETICS AND "RACE"

HUMAN BEINGS are exceedingly complex structures, and it is never at any time an easy thing to analyze the motives involved in their behavior. The fact is that the individual himself is rarely able to give a satisfactory account of the motives for his conduct, since the elements entering into it are usually both numerous and complex. One should therefore be wary in attempting to interpret the behavior of others. This applies with especial force to eugenists. Eugenists are persons who believe that the human race, or their particular branch of it, is rapidly decaying and that if the race is to be made safe for the future, steps must be taken to eliminate the undesirable decay-producing elements and to bring about a general improvement in man's physical and mental structure by selective breeding. Eugenics means good breeding. Galton, its founder, defined it as "the science of improving stock, which is by no means confined to questions of judicious mating but which, especially in the case of man, takes cognizance of all influences that tend in however remote a degree to give to the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable than they otherwise would have had." [1] It is quite clear from this definition that the founder of eugenics was convinced of the existence of "higher" and "lower," "superior" and "inferior," "races," and that he considered it a desirable thing that the "superior" "races" should prevail over the "inferior" "races," and that as speedily as possible. Thus, we perceive that implicit in the eugenic movement from the outset was the doctrine of racism.

Eugenists are, in general, sincerely enthusiastic persons who are honestly anxious to be of service to their fellows, not to mention future generations, but they are also very dangerous persons. A little knowledge is a dangerous thing, and a great

[1] Galton, *Inquiries into Human Faculty.*

deal of the world's unhappiness is due to well-meaning persons who, possessing a little knowledge, attempt on the basis of it to make decisions for others whose true nature they do not understand and whose future it would be impossible for anyone to predict. It is to be feared that a large number of the most vocal eugenists fall into this category. Furthermore, it is known that the sins of some eugenists are less venial than the sins of those who have merely acted on the basis of half-baked knowledge. In this country, and elsewhere, eugenics was early converted into a movement in the service of class interests, as is so well exemplified by the writings of such men as the late Madison Grant and Henry Fairfield Osborn, to name but two. Professor E. G. Conklin writes: "Nowadays one hears a lot of high sounding talk about 'human thoroughbreds,' which usually means that those who use this phrase desire to see certain narrow and exclusive social classes perpetuated by close inbreeding; it usually has no reference to good hereditary traits wherever found, indeed such traits would not be recognized if they appeared outside of 'the four hundred.' Such talk probably does neither harm nor good; the 'social thoroughbreds' are so few in number and so nearly sterile that the mass of the population is not affected by these exclusive classes." [2]

So long as no attempt is made to impose such views upon the population, no great harm can be done. All of us, however, have some knowledge of the tragic effects of the teaching of mythological "race" doctrines and of the practice of "race" hygiene in Germany. Similar attempts have frequently been made in this country, bills having been introduced into state legislatures, and passed in thirty of them, making it a criminal offense or unlawful for persons of different colors or "races" to intermarry, as well as for those who in any way assist such a union.[3] Such activities, among others, have caused eugenics to fall into disrepute among scientific students of genetics, the science of heredity upon which eugenics is alleged to be based. The clear stream of science must not be polluted by the murky

[2] Conklin, *Heredity and Environment*, p. 306.

[3] See Appendix D.

visions of politicians and the prescriptions of effete castes distinguished by an hypertrophied sense of their own importance.

While it is praiseworthy to look forward to and to work for a more humane humanity and a world with fewer imbeciles, degenerates, and criminals and greater numbers of highly intelligent and healthy individuals, it is quite certain that such a state could never be achieved by such practices as the eugenists have in the past recommended.[4] Inherited disorders, such as certain types of feeblemindedness, call for sterilization; common humanity demands that, but one is deceived if one believes that by such measures feeblemindedness would be very appreciably reduced. Were every feebleminded individual to be sterilized for the next two thousand years, the reduction in the number of feebleminded individuals in the population at the end of that time would not exceed 50 percent. It is a very long time to have to wait for such a return. Superior methods are available, but they do not appeal to eugenists, who fail to understand that engenics should be a social science, not a biological one.

In offering their dubious cures for our alleged ills the extremists among eugenists go even farther and pretend to perceive biological differences between "races." They arbitrarily designate as "superior" the "race" or stock to which they happen to belong and as "inferior" all or most of the others. The corollary to this is that "race mixture" should be prevented if "racial" degeneration, according to their definition, is not to ensue. It is with this aspect of eugenics that we are concerned here.

The term "race," as we have seen, is an unscientific one. Science knows of nothing in the real world relating to human beings which in any way corresponds to what this term is usually assumed to mean, that is, a group of individuals marked off from all others by a distinctive heredity and the

[4] I say "past," because at the present time there are very happy evidences of a return to sanity among eugenists. See, for example, Frederick Osborn's *A Preface to Eugenics*.

possession of particular physical and mental characters. In this sense there is actually only one race, or one thing which corresponds to it, and that is the human race, embracing every human being. It is, of course, clear that there exist certain groups within the human race which are characterized by differences in pigmentation, hair form, and nose form. These we have already called "ethnic groups." If, as seems clear, all human groups are derived from a common ancestry, then it is also clear that such differences represent the expression of the combined action of mutant genes, hybridization, natural and social selection. In any event, such ethnic groups would by the fact of their very existence prove, in the scale of natural values, biologically fit. There can, therefore, be no argument on the score of the physical or biological structure of any ethnic group—unless an appeal be made to purely arbitrary and irrelevant aesthetic standards. Actually, the argument is always based on the existence of alleged mental and cultural differences; these are invariably assumed to be biologically determined. For such an assumption there is not, as we have seen, a scrap of evidence. On the contrary, the substantial body of evidence now available proves that when the members of any variety of mankind are given for the first time adequate opportunities, they do, on the average, quite as well as any who have long enjoyed the advantages of such opportunities. And as Boas has said, "if we were to select the most intelligent, imaginative, energetic and emotionally stable third of mankind, all races would be represented." [5]

There exists no evidence whatever that mental ability and cultural achievement are functions which are in any way associated with genes linked with those for skin color, hair form, nose shape, or any other physical character. It is, therefore, from the genetic standpoint, impossible to say anything about a person's mental ability or cultural achievement on the basis of such physical characters alone. Cultural differences between peoples are due to a multiplicity of historical causes which have nothing whatever to do with genes and

[5] Boas, *Anthropology and Modern Life.*

which are essentially and fundamentally of a social nature; to the same causes are due the differences in the cultural conduct of the members of those different cultures. Hence, on biological grounds and as a consequence of the common ancestry of all peoples—however much they may differ from one another in their physical characters—there is every reason to believe that innate mental capacity is more or less equally distributed in all its phases in all human groups. If this is so, and this is a matter which can be tested, there can be not the slightest justification for the assertion that ethnic mixture would lead to the intellectual deterioration of any people. The evidence is all to the contrary, as the frequency of the phenomenon of hybrid vigor among human beings proves.

In this connection Huxley has written that he regards it as "wholly probable that true Negroes have a slightly lower average intelligence than the whites or yellows. But neither this nor any other eugenically significant point of racial difference has yet been scientifically established.

"Further, even were the probability to be established that some 'races' and some classes are genetically inferior to others as a fact, it seems certain, on the basis of our present knowledge, that the differences would be small differences in average level, and that the ranges would overlap over most of their extent—in other words, that a considerable proportion of the 'inferior' group would be actually superior to the lower half of the 'superior' group. Thus no really rapid eugenic progress would come of encouraging the reproduction of one class or race against another." [6]

Huxley has committed a common methodological error here when he gives it as his opinion that true Negroes probably have a slightly lower average intelligence than whites or yellows. The question must be asked: "Average intelligence measured by what standard?" Surely, it should at this late date be evident that intelligence, by whatever standard it is measured, is always a function of cultural experience as well as of

[6] **Julian S. Huxley, *Man Stands Alone*, p. 53.**

inherent quality. The fact that this is so is strikingly brought out with reference to the Negroes themselves and in relation to whites by the results obtained in the Army intelligence tests carried out on Negro and white recruits during the first World War. These tests showed that Northern Negro recruits invariably did better on the tests than Southern Negro recruits. The tests also showed that Negroes from certain Northern states on the whole did better in the tests than white recruits from almost all the Southern states. Here are the median scores of the groups compared.

TABLE 1

ARMY COMPREHENSIVE ALPHA TESTS: WHITE RECRUITS FROM ELEVEN SOUTHERN STATES COMPARED WITH NEGRO RECRUITS FROM FOUR NORTHERN STATES [a]

Whites		Negroes	
State	*Median Score*	*State*	*Median Score*
Arkansas	35.60	Ohio	45.35
Mississippi	37.65	Illinois	42.25
North Carolina	38.20	Indiana	41.55
Georgia	39.35	New York	38.60
Louisiana	41.10		
Alabama	41.35		
Kentucky	41.50		
Oklahoma	43.00		
Texas	43.45		
Tennessee	44.00		
South Carolina	45.05		

[a] Computed from the data in Yerkes (editor) *Psychological Examining in the United States Army,* Tables 205–6, pp. 690 and 691. Data for the Negro recruits was available for only twenty-four out of the forty-eight states and the District of Columbia. Had data been available for all areas of the United States it is quite probable that several more states would have shown higher median scores for Negroes than for whites of some other states.

From this Table it will be seen that the Negroes from Ohio with a median score of 45.35 did better than the whites of eleven States, all of which happen to be Southern. The Negroes of Illinois with a score of 42.25 and the Negroes of Indiana with a score of 41.55 did better than the whites from seven

Southern States, while the Negroes from New York with a score of 38.60 did better than the whites from three Southern States. The Negroes from the Northern States who did better than the Negroes and whites from the Southern States listed, did so not because of any inborn differences between them, but because the social and economic opportunities of the Northern Negroes had been superior to those enjoyed by Southern Negroes and whites.[7] The results of these tests have been fully corroborated by tests made on Northern and Southern Negro children.[8]

It is quite possible that there exist differences in the distribution of the kinds of temperament and intelligence in different ethnic groups, but if such differences exist, they must, as Huxley has pointed out, be very small. The important fact is, surely, that every living ethnic group has survived to the present time because it has been able to meet the demands of its particular environment or environments with a high order of intelligence and the necessary physical vigor. This is a truth which holds for the most isolated group of aborigines as for the most highly cultured peoples. Measured by such standards, it seems probable that there are no significant differences in the intelligence potentials of different ethnic groups.

When eugenists assert that there has been a great increase in degeneracy, criminality,[9] and feeblemindedness and that

[7] When, in a pamphlet entitled *The Races of Mankind* published in October 1943, the authors, Drs. Ruth Benedict and Gene Weltfish, quoted the median scores obtained on the Army Intelligence tests by whites from three Southern states and compared them with the superior scores obtained by Negroes from three Northern states, and drew the same conclusions as have been drawn above, a House Military Affairs Committee headed by a Southern member of the United States Congress caused the suppression of this pamphlet for use by the United States Army. For an account of the facts see Montagu, "The Intelligence of Southern Whites and Northern Negroes," *Psychiatry*, VII (1944), 183–89. For a complete analysis of the test results see Montagu, "Intelligence of Northern Negroes and Southern Whites in The First World War," *American Journal of Psychology*, Vol. LXVIII (1945).

[8] Klineberg, *Negro Intelligence and Selective Migration.*

[9] For an analysis of the problem of crime in our society see Montagu, "The Biologist Looks at Crime," *Annals of the Academy of Political and Social Science*, CCXVII (1941), 46–57; Merton and Montagu, "Crime and the Anthropologist," *American Anthropologist*, XLII (1940), 384–408; Bonger, *Race and Crime;* Barnes and Teeters, *New Horizons in Criminology.*

the race is rapidly deteriorating, they do so generally without benefit of a full knowledge of the facts whereof they speak, for the truth is that except for the *ex cathedra* manner in which such statements are usually delivered, little real evidence is ever forthcoming in support of their Jeremiads. The good will to help is blind and often cruel if it is not guided by true insight based on knowledge. A physician can be of use only when he has first carefully investigated the cause of disease and when it is quite clear what his remedies can effect; otherwise he is a positive danger.

Dr. Irving Langmuir, in a recent presidential address to the American Association for the Advancement of Science, uttered a very pertinent criticism in this connection. "We often hear realists," he said, "deplore the effects of charity which tend to keep the unfit alive. We are even told that the whole course of evolution may be revised in this way. Similar arguments could be used against the surgeon who removes an appendix or a doctor who uses a sulfa drug to cure pneumonia.

"But what is the need of developing a race immune to appendicitis or pneumonia if we possess means of preventing their ill-effects. The characteristics that determine fitness merely change from those of immunity to those which determine whether a race is able to provide good medical treatment." [10]

Today our many varieties of recording facilities are immeasurably superior to those in existence a hundred years ago, and our hospitals, physicians, asylums, police, and incentives to crime are vastly more numerous. Yet, in spite of all these tokens of decline the expectation of life of the average individual has in modern times practically doubled, while some of the worst scourges of mankind, such as the vitamin-deficiency diseases, the venereal diseases, typhoid, typhus, yellow fever, diphtheria, tuberculosis, and many others, have been brought under control. During this period there has been such a burgeoning of invention and discovery, such a flowering of intellectual development, as the world has never

[10] Langmuir, "Science, Common Sense and Decency," *Science*, XCVII (1943), 6.

before witnessed; and all this, presumably, as a sort of efflorescence of the process of deterioration. The swan song of a world the eugenist never made. Or have the great achievements of the last hundred years, perhaps, been due to the genius of a few individuals who have managed to carry the burden of the mediocrities along with them? This is a view which is frequently urged by "superior" persons. It is a sad commentary upon the understanding and the charity of those who hold it, and it does scant justice to untold millions of individuals who were never given a chance, who made good as best they knew how—which was more often than not as best they were permitted—and who died unremembered and scorned.

Let us give human beings equal social, cultural, and economic opportunities, and then we shall be able to judge how many, if any, genetically inadequate individuals we have among us. We shall then be in a position to judge the nature of the biological measures which ought to be instituted to ensure the welfare of our species. Surely it should be clear that these measures would not really be biological, but social, and that in their effects the social advantages would always be greater than the biological ones. This would, surely, be the most reasonable procedure, in view of the fact that in most cases it would take many hundreds of years to eliminate, even partially, a single defective trait. Only a few generations would be required for a purely social process to determine whether or not many of the alleged deteriorative factors which are said to be undermining the health of the "race" could be eliminated by improving the social environment. Our present social ills are for the most part produced, not by genetically inadequate individuals, but by socially inadequate ones, and the remedy for those ills therefore lies first in the improvement of the social environments of our species. Our troubles, it must be repeated, emanate, not from biological defectives, but from social defectives; and social defectives are produced by society, not by genes. Obviously, it is social, not biological, therapy that is indicated.

The great fallacy committed by eugenists, and by many others, is that, having to some extent followed the work of the geneticists in breeding certain characters in lower animals within the walls of a laboratory, they have extrapolated from the laboratory findings on such lower animals to conditions vastly more complex and obscure, and which have, moreover, never formed the subject of experimental investigation. Human beings are not representative of strains similar to the highly selected pure strains of mice and rabbits which form the geneticist's material. Naïve and uninformed persons believe that if in the geneticist's breeding laboratory the genetics of a certain character is studied and the experimenter can at will breed his animals for that character, the same thing can be done for human beings. Theoretically and under certain ideal conditions and given scores of generations of selected human beings this could be done for some, but not for all, characters. Obviously this is quite impractical; if it were practical, it would still be open to question whether it would be desirable.[11] Unlike most eugenists, we frankly confess that we do not possess all the answers. The truth is that we do not yet know enough about human heredity to meddle with human beings in order to improve the stock. Two mediocrities may produce a genius; two geniuses may produce a mediocrity. In view of the fact that the genes for defective characters are frequently carried in the recessive condition, it is generally impossible to spot them in apparently otherwise normal individuals, and it

[11] While breeding for certain desirable characters in plants or lower animals, it frequently happens that certain undesirable characters are developed. The genes for these, carried as recessives, under normal conditions remain unexpressed, but under controlled breeding find expression because of their unsuspected linkage with the genes of the character considered desirable. For example, Asdell has recently observed that "all the intersexual goats he had seen (about 200 now) were hornless. Hornlessness is inherited as a simple dominant. Since then much inquiry and observation have failed to unearth a single intersex. If they exist, they must be very rare. This suggests that there is a close linkage between the two genes, an important point economically, since selection for hornlessness has been practiced by pedigree goat breeders for some time. The goat breeders have evidently been increasing the gene frequency for intersex by selecting for hornlessness and are thus doing themselves harm." Asdell, "The Genetic Sex of Intersexual Goats and a Probable Linkage with the Gene for Hornlessness," *Science*, XCIX (1944), 124.

is in most cases therefore impossible to predict when they are likely to crop out. Selective breeding, as understood by the eugenist, is inbreeding, and that is a notoriously dangerous process, for by such means the chances are greatly increased of bringing together recessives of a character detrimental to the organism. By outbreeding such recessives become associated with dominants and therefore remain unexpressed. When selection is practiced on animals, we keep only those animals which exhibit a particular character; the others, showing undesirable characters, are killed. Mankind, it is very much to be feared, is not to be saved by being treated like a lot of race horses or a strain of dogs, at the fancier's discretion. Human beings must be treated like human beings first and only secondarily, if at all, as if they were animals; for the ills from which our particular sample of mankind suffers result from the misuse of man's capacities for being human. Those ills are not due to the totally irrelevant fact that man is a member of the animal kingdom subject to the laws of genetics as is any other mammal.

In effect eugenists tell us that by random mating defective characters are accumulated in the recessive state until the whole population becomes affected. The defects so carried will then become expressed and will wreak havoc upon such a population. Upon this kind of fantastic reasoning Dobzhansky has made the following adequate comment:

"It is not an easy matter to evaluate the significance of the accumulation of germinal changes in the population genotypes. Judged superficially, a progressive saturation of the germ plasm of a species with mutant genes a majority of which are deleterious in their effects is a destructive process, a sort of deterioration of the genotype which threatens the very existence of the species and can finally lead only to its extinction. The eugenical Jeremiahs keep constantly before our eyes the nightmare of human populations accumulating recessive genes that produce pathological effects when homozygous. These prophets of doom seem to be unaware of the fact that wild species in the state of nature fare in this respect no better than

man does with all the artificiality of his surroundings, and yet life has not come to an end on this planet. The eschatological cries proclaiming the failure of natural selection to operate in human populations have more to do with political beliefs than with scientific findings." [12]

Certainly we could do a great deal to reduce the number of the hopelessly defective among us. It is also important to realize that thousands upon thousands of seriously defective individuals are today alive who under natural conditions would not have survived long. It should, however, be clear that wherever in an ethnic group or nation such individuals exist they constitute a problem which can be attacked by social means alone—social means based upon humane social principles and sound scientific knowledge. To proceed on the basis of one without the other would be dangerous and undesirable.

It is among the white peoples of the earth that there are the most defectives. The materially less advanced peoples of the earth generally kill off their defectives as soon as the defect, or anything approximating a defect in their eyes, becomes apparent. Such heroic measures are, fortunately, replaceable by more effective means of prevention; this is a matter for each people to determine for itself, following procedures agreed upon preferably in international conference. At the present time the normal healthy individual is in all ethnic groups far more numerous than the defective individual, and the chances are excellent that crossbreeding between such groups will decrease rather than increase the incidence of defectives. Hence, we may conclude that there is nothing in the nature of any ethnic group, taken as a whole, which could upon either genetic or eugenic grounds be construed as leading to any bad effects under crossing.

In conclusion, then, it would seem evident that until man has put his social house in order, it would be unwise for him to indulge in any strenuous biological exercises, for a rickety house on shaky foundations is not the proper place for such exercises.

[12] Dobzhansky, *Genetics and the Origin of Species,* 1st ed., p. 126.

10

"RACE" AND CULTURE

QUESTIONS often asked are: "Why is it that the cultures of different 'races' differ so much from one another? Is this due to the fact that 'race' and culture are inseparably connected?"

The answer to these questions is really quite simple. Cultures differ from one another to the extent to which the experience of the interacting group has differed. By "experience" I mean anything that an individual or a group of individuals has undergone or lived, perceived or sensed. No matter with what variety of mankind we may be concerned or with what groups of a particular variety, culture is in its broadest and fundamental sense, not merely an aspect, but a function of experience. As Eric Kahler says, "Historical evidence proves beyond doubt that the exact opposite of what the so-called race theory pretends is true: any decisive advance in human evolution has been accomplished not by breeds that are pure either mentally or physically, not by any cultural inbreeding, but by an intermixture, by mutual impregnation of different stocks and cultures." [1]

The reason the cultures of other varieties of man are so different from our own is that they have been exposed to experiences which differ as considerably from our own as do the cultures in question. If you or I, with our present genetic background, had been born and brought up among a group of Australian aborigines, we should be, culturally, Australian aborigines, though physically we should have remained members of our own ethnic group. For experience is determined by the place and the culture in which groups and individuals live, and for this reason groups and individuals belonging to different cultures will differ mentally from one another. Our physical structures would not have varied significantly, be-

[1] Kahler, *Man the Measure*, p. 30.

cause they were for the most part genetically determined by our present parents; but our cultural equipment would have been that of the Australian aborigines. Why? Because culture —and by "culture" I understand the customs, ideals, and material products of a particular society—is something that one acquires by experience, unlike one's physical appearance, which one acquires through the action, for the most part, of inherited genes; the culture of individuals, as of groups, will differ according to the kinds of experience which they have undergone. The culture of different peoples, as of different individuals, is to a very large extent a reflection of their past history or experience. This is a point which is worth more than laboring. If the cultural status of any variety of man is determined merely by the kind of experience which it has undergone, then it is evident that by giving all people the opportunity to enjoy a common experience—supposing for the moment that this were desirable—all varieties would become culturally and mentally equal, that is, equal in the sense that they would have benefited from exposure to the same kind of experience, always allowing, of course, for the fact that no two individuals can ever be alike in their reception of and reaction to the same experience and that there will always, very fortunately, continue to exist great differences between individuals. There can be very little doubt that genetic differences in temperament and intellectual capacity exist between the individuals comprising every variety of mankind, no two individuals in this respect ever being alike; but it takes the stimulus of a common experience to bring them out and to render them comparable. It is because of differences in cultural experience that individuals and groups differ from one another culturally, and it is for this reason that cultural achievement is an exceedingly poor measure of the value of an individual or of a group.

For all practical purposes, and until evidence to the contrary is forthcoming, we can safely take cultural achievement to be the expression merely of cultural experience. Obviously, all learned activities are culturally, not biologically, deter-

mined, whether those activities be based upon physiologic urges or traditional practices. The generalized urges which all human beings inherit in common continue to be present in all human beings in all cultures; but how these urges are permitted to operate and how they are satisfied is something which is determined by tradition and varies not only in different cultures but in different groups within the same culture. For example, one of the fundamental urges which we all inherit is the urge to eat. Now, different human groups, to whom the same foodstuffs may or may not be available, not only eat different foods, but prepare them in unique ways, and consume them, with or without implements, in various ways, usually established only by custom. The faculty of speech is biologically determined, but what we speak and how we speak is determined by what we hear in the culture in which we have been culturalized. Human beings everywhere experience when they are tired, the desire to rest, to sit down, to lie down, or to sleep; but the manner in which they do all these things is culturally determined by the customs of the group in which they live. Many other instances will doubtless occur to the reader. The point to grasp here is that even our fundamental biological urges are culturally controlled and regulated or culturalized and that their very forms and expressions, not to mention satisfactions, are molded according to the dictates of tradition.

In view of the tremendous number of different cultural variables which enter into the structure and functioning of different groups and the individuals composing them, it is surely the most gratuitous, as it is the most unscientific, procedure to assert anything concerning assumed genetic conditions without first attempting to discover what part these cultural variables play in the production of what is predicated. Obviously, no statement concerning the mentality of an individual or of a group is of any value without a specification of the environment in which that mentality has developed. The introduction of genetics as the *deus ex machina* of genetics to account for the cultural differences between people

may be a convenient device for those who must do everything in their power, except study the actual facts, to find some sort of support for their prejudices, but it is a device which will hardly satisfy the requirements of an efficient scientific method. Such devices must be accepted in a charitable spirit as the perverse efforts of some of our misguided fellows to conceal the infirmities of their own minds by depreciating the minds of others. John Stuart Mill, almost one hundred years ago, in 1848, in his *Principles of Political Economy,* put the stamp upon this type of conduct very forcibly; he wrote, "Of all the vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences." While the number of people guilty of this vulgar error has greatly increased since Mill's day, the number who know it to be false has also greatly increased, and there is no need of despair for the future. The facts which are now available concerning the peoples of the earth render it quite clear that they are all very definitely brothers under the skin.

It is, perhaps, too much to expect that those who have been educated in the contrary belief will accept such a view, but the least we can do is to provide the children in our schools with an honest account of the facts instead of filling their guiltless heads with the kinds of prejudice that we find distributed through so many of the books and so much of the teaching with which they are provided. Surely, a sympathetic understanding of people who behave "differently" and look "different" cannot help but broaden one's horizons and lead to better human relationships all around. Socially, this is, of course, greatly to be desired, and in the United States a beginning has already been made in this direction in several American cities.[2] Such enterprises, however, must be multiplied several thousand times. Here, obviously, there is a great deal of work to be done.

But let us return to our main discussion, for though school

[2] See Appendix A.

children and others have frequently heard of physical relativity, few, if any, children, and hardly anyone else, ever encounter the concept of cultural relativity.[8] From the standpoint of the well-being and happiness of mankind the latter is a vastly more important conception to grasp than the former. By "cultural relativity" I mean that all cultures must be judged in relation to their own history, and all individuals and groups in relation to their cultural history, and definitely not by the arbitrary standard of any single culture such, for example, as our own. Judged in relation to its own history, each culture is seen as the resultant of the reactions to the conditions which that history may or may not record. If those conditions have been limited in nature, so will the culture reflecting their effects. If the conditions have been many and complex in character, then the culture will reflect that complexity. Culture is essentially a relation which is the product of the interaction between two correlates—the one a plastic, adaptable, sensitive, biological being, the other simply experience. If we agree that mankind is everywhere plastic, adaptable, and sensitive, then we can only account for the mental and cultural differences between the varieties of mankind on the basis of different experiences. And this, when everything is taken into consideration, seems to be the principal explanation of the mental and cultural differences which exist between the varieties of man. Let me give one or two examples of cultural relativity, as it were, in action.

Five thousand years ago the ancestors of the present highly cultured peoples of Europe were savages roaming the wilds of Europe. The ancestors of the modern Englishman were living in a Stone Age phase of culture, painting their bodies with woad and practicing all sorts of primitive rites, being culturally about equivalent to the Australian aboriginal—a state in which they continued with little change for more than three thousand years, until they were discovered and conquered by

[8] For an illuminating exposition of cultural relativity see Benedict, *Patterns of Culture.*

the Romans in the first century of our era.[4] Five thousand years ago Europe was inhabited by hordes of savages, at a time when the kingdoms of Africa and the Babylonian Empire were at their height. Babylon has long since passed into history, and the kingdoms of Africa have undergone comparatively little change; but five thousand years ago and less, the natives of these great cultures could have looked upon the Europeans as savages equal to beasts and by nature completely incapable of civilization—and hence better exterminated lest they pollute the "blood" of their superiors. Well, whatever sins the Europeans have since committed, they have at least shown that given sufficient time and experience they were capable of civilization to a degree not less than that to which Babylon and the kingdoms of Africa attained.

Here we have an example of cultural relativity. If we use time as our framework of reference, we might ask: "Since the Africans have had a much longer time than we have had to develop culturally, why haven't they developed as far as we have done?" Disregarding the dubious notion that any human group has enjoyed a longer time in which to develop than any other, the answer is that time is not a proper measure to apply to the development of culture or cultural events; it is only a convenient framework from which to observe their development. Cultural changes which among some peoples it has taken centuries to produce, are among other peoples often produced within a few years.[5] The rate of cultural change is dependent upon many different factors, but the indispensable and necessary condition for the production of cultural change is the irritability produced by the stimulus of such new experiences; cultural change is exceedingly slow. Hence, if new experience is the chief determinant of cultural change, then

[4] Many Romans had an extremely low opinion of the mental capacities of the Britons. Thus, Cicero, writing to Atticus, says, "Do not obtain your slaves from Britain, because they are so stupid and so utterly incapable of being taught that they are not fit to form part of the household of Athens."

[5] Sorokin and Merton, "Social Time: a Methodological and Functional Analysis," *American Journal of Sociology*, XLII (1937), 615–29; Sorokin, *Sociocultural Causality, Space, Time*, pp. 158–225.

the dimension by which we may most efficiently judge cultures is that of the history of the experience which has fallen to the lot of the cultures observed. In other words, to evaluate cultural events properly one must judge them by the measure of experience viewed through the framework of time.[6] We of the Western world have packed more experience into the past two thousand years than has probably fallen to the lot of the Australian aborigines, as well as other peoples, throughout their entire history.

Experience, or variety of cultural contacts, not time, is the all-important factor. It would obviously be wrong to expect an Australian aboriginal to behave like an Oxford man, but were he given all the cultural advantages of the Oxford man there can be very little doubt but that he would do at least as well. It has already been pointed out that when Caesar set foot in Britain the ancestors of the Englishman were culturally about equivalent to the Australian aboriginal. Following the Roman conquest the Britons enjoyed the advantage of frequent and close contacts with the peoples of Europe, the fructifying influence of such contacts being the chief factor responsible for raising them from the level of a horde of barbarians. The Australian aboriginal, on the other hand, has been almost completely isolated upon his continent for countless generations without benefit of anything like such contacts with the cultures of other peoples. No benevolent Caesar has ever visited their shores, yet they have been able to build up a culture which is a perfect adaptation to the conditions in which it has had to operate. It is not without a moral to reflect that Rome did better by its subject peoples than Britain and its colonies have ever done by theirs and that had the Romans treated the Britons as the Britons have in quite recent times treated some of their subject peoples, it is doubtful whether by this time there would be any Britons left.[7]

[6] Montagu, "Social Time: a Methodological and Functional Analysis," *American Journal of Sociology*, XLIV (1938), 282–84.

[7] One may recall the brutal and deliberate extinction of Tasmanian aborigi-

It should be clear from what has been said above that any judgments of value we may attempt to make between our own culture, whatever that may be, and that of other peoples will be quite invalid unless they are made in terms of experience. Bearing this cardinal principle in mind, we shall be able to steer a clear course.

If the essential physical differences between the varieties of mankind are limited to superficial characters, such as color of skin, form of hair, and form of nose, and the cultural and mental differences are due merely to differences in experience, then from the socio-biological standpoint all varieties of mankind must be adjudged fundamentally equal; that is to say, equally good and efficient in a biological sense and in cultural potentiality. All normal human beings are born as culturally indifferent animals; they become culturally differentiated according to the social group into which they happen to be born. Some of the culturally differentiating media are neither as complex nor as advanced as others; the individuals developed within them will be culturally the products of their cultural group. As individuals, they can no more be blamed or praised for belonging to their particular group than a fish can be either blamed or praised for belonging to his particular class in the vertebrate series. Culture, the culture of any group, is more or less determined by accidental factors, which the group, as a group, has usually done little to bring about. Members of the more advanced cultures have merely been luckier in that they have had broader experience and more stimulating contacts than members of the less advanced cultures. Boas has said: "The history of mankind proves that advances of culture depends upon the opportunities presented to a social group to learn from the experience of their neighbors. The discoveries of the group spread to others and, the more varied the contacts, the greater are the opportunities to learn. The tribes of simplest culture are on

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nes, the cruel and ungrateful treatment of Australian aborigines and the peoples of the Uganda and Kenya colony. See Russell, *Colour, Race and Empire.*

the whole those that have been isolated for very long periods and hence could not profit from the cultural achievements of their neighbors." [8]

In short, the history of mankind teaches us that there is no inherent tendency in any group of mankind, which distinguishes it from any other, to develop from a state of "barbarism" to one of "high culture." It is only under certain culturally stimulating conditions, which are for the most part accidentally determined, that any group will ever advance to a state of high culture. In the absence of such conditions no human group will ever advance beyond the state of culture determined by the totality of the conditions operative upon it. That should be obvious.

It has often been argued that "racial" enmities between men will disappear only when all physical "racial" differences between them have been obliterated. This is a fallacious argument for the simple reason that the real source of "racial" hostilities is not physical, but cultural. It would be equally erroneous to argue from this that such hostilities will therefore disappear only with the obliteration of all cultural differences between men.

The world would be immensely the poorer for such a cultural leveling, and such a process would not, in any event, bring about the desired effect. Perfection of man's nature and achievements, it cannot be too often emphasized, is not obtained by the ascendancy of one form of excellence, but by the blending of what is best in many different forms; by harmonizing differences, not by rendering them more discordant. Stressing superficial differences between people only helps to maintain the illusion that there may be more fundamental differences behind them. What in truth and in justice requires to be done is to stress the fundamental kinship of all mankind; to stress the likenesses which we all bear to one another, and to recognize the essential unity in all mankind in the very differences which individuals of all ethnic groups display. The world must be reëstablished as a vast community

[8] Boas, "Racial Purity," *Asia*, XL (1940), 231–34.

in which every ethnic group is freely permitted to give as well as to receive. Such an ideal will never be achieved by the ignorant and vicious stressing of differences, but by the broader, saner, and humaner sympathetic stressing of their fundamental likenesses, and, finally, by the utilization and interchange of those very differences to strengthen each other in living a fuller, a more varied, a more interesting, and a more peaceful life.

11

"RACE" AND WAR

IT IS NOW more than seventy years since that fatal morning when a dust-laden Prussian officer cantered into Paris at the head of a small advance party of Uhlans, thus signalizing the capitulation of the French and the unequivocal victory of the Germans in the Franco-Prussian War of 1871. Forty years later this self-same Prussian officer, now a general, careered into Europe with a book which at once attained universal notoriety. This book was entitled *Germany and the Next War*. Few books have before or since been so fervidly and widely discussed. In England, at any rate, the book passed through more than a score of impressions in as many weeks. As a child, then living in London, I well remember the sensation it caused and how often I saw it in the most unexpected places. Since those days I have learned that the volume used to be kept on tap in the precincts of those lesser parliaments, the pubs, where men who "talked politics" could freely consult it over a tumbler of beer and a pipe. In this book the author, General Friedrich von Bernhardi, boldly threw down the gauntlet to the world and, virtually with saber in hand, called upon the German people to protest against the "aspirations for peace which seem to dominate our age and threaten to poison the soul of the German people."

It is understandably rather hard for an iron-headed soldier, after some forty years of comparative inactivity, to recall an event as stirring as the entry at the head of a victorious army into a defeated enemy's capital without feeling that if things were not actually going to the dogs, at least it was high time that something was done to prevent the possibility. And so, in order to convince the German people of the "unnaturalness" of that "inactivity which saps the blood from a nation's sinews," von Bernhardi did something that he had never done before, he wrote and published a popular propagandistic

book, making the pen, as it were, temporarily do service for the sword and ink for blood. "War," declared von Bernhardi, "is a biological necessity"; it "is as necessary as the struggle of the elements in Nature"; "it gives a biologically just decision, since its decisions rest on the very nature of things." "The whole idea of arbitration represents a presumptuous encroachment on the natural laws of development," for "what is right is decided by the arbitrament of War." In proof whereof such Darwinian notions as "the struggle for existence," "natural selection," and "survival of the fittest" are invoked with a loud fanfare of trumpets. According to von Bernhardi, it is plainly evident to anyone who makes a study of plant and animal life that "war is a universal law of Nature." [1]

This declaration and fortification of Germany's will-to-war —for it had the highest official sanction and approval—was published in 1912. Two years later the greatest holocaust the world had yet known was launched upon its ghastly way by those

> . . . vultures sick for battle
> Those bloodless wolves whose dry throats rattle,
> Those crows perched on the murrained cattle,
> Those vipers tangled into one,

the confused, inhuman militaristic von Bernhardis and the other legislators of a victimized Europe.

The first World War came to an end twenty-seven years ago, having cost the lives of thirteen million men; eight million were slaughtered upon the field of battle, and ten million civilians died either directly or indirectly as a result of the war. As for the maimed and wounded combatants, these amounted to a mere twenty million. The cost of running this fracas amounted to $125,000,000 a day during the first three

[1] *Germany and the Next War*, pp. 16–37. Compare with this the following passage from the recently published work by a member of the ruling class of contemporary England. "War, however much we hate it, is still the supreme agent of the evolutionary process. Blind, brutal and destructive, it remains the final arbiter, the one test mankind has yet contrived of a nation's fitness to survive." Lord Elton, *Saint George or the Dragon*.

years and $224,000,000 a day during 1918, the total cost of the killing amounting to some four hundred billion dollars.

This year considerably more than the total income of the governments of the world will be spent upon killing. The war that has for so many years appeared inevitable is now tragically with us, and although most human beings now living, with the exception of some militarists, can see neither sense, good, nor anything but misery in war, there are many who, like von Bernhardi, continue to aver that war has its biological justification. Among these is my old friend and teacher Sir Arthur Keith, who in several recent articles [2] maintains that the impulses which lead men to aggressive and defensive wars are "nature's mechanisms for preserving the individual and the tribe or nation" and "make individuals and nations willing to risk life itself to further the means and opportunities of life." In all theories of this kind "race" and "race" prejudice are conceived by their proponents to play a basic and "natural" part.

Sir Arthur Keith's opinions upon this subject first came into prominence with the publication of his Rectorial Address to the students of Aberdeen University in 1931.[3] In the present chapter I propose to take Sir Arthur Keith's views on the nature of war and its relation to "race" prejudice and, treating them as representative of the "race-prejudice-biological-nature-of-war" school, subject them to a brief critical examination. Keith begins by declaring his firm conviction that "prejudices are inborn; are part of the birthright of every child." These prejudices "have been grafted in our natures for a special purpose—an evolutionary purpose." "They are essential parts of the evolutionary machinery which Nature employed throughout eons of time to secure the separation of man into permanent groups and thus to attain production of

[2] Keith, "Must a Rationalist be a Pacifist?" *The Truth Seeker*, LXVI (1939), 33–34; "Nationalism," *Sunday Express* (London), April, 1940, pp. 61–62; a series of about twenty articles headed "An Anthropologist in Retirement," in *The Literary Guide*, (London) LVIII (1943) and LIX (1944). For the views of the American war-mongers see Hofstadter, *Social Darwinism in American Thought 1860–1915*.

[3] Keith, *The Place of Prejudice in Modern Civilization*.

new and improved races of Mankind." "Nature endowed her tribal teams with this spirit of antagonism for her own purposes. It has come down to us and creeps out from our modern life in many shapes, as national rivalries and jealousies and as racial hatreds. The modern name for this spirit of antagonism is race-prejudice." "Race-prejudice, I believe," continues Keith, "works for the ultimate good of Mankind and must be given a recognized place in all our efforts to obtain natural justice in the world." Here, sadly, we may recall von Bernhardi's "war renders a biologically just decision, since its decisions rest on the very nature of things." It is the same argument, endlessly repeated, in almost the same words.

And now for the passage from Keith which has gained such widespread notoriety: "Without competition Mankind can never progress; the price of progress is competition. Nay, race prejudice and, what is the same thing, national antagonism, have to be purchased, not with gold, but with life. Nature throughout the past has demanded that a people who seeks independence as well as peace can obtain these privileges only in one way—by being prepared to sacrifice their blood to secure them. Nature keeps her orchard healthy by pruning; war is her pruning hook. We cannot dispense with her services. This harsh and repugnant forecast of man's future is wrung from me. The future of my dreams is a warless world." [4]

Essentially similar views were expressed by Sir Arthur Keith in his Robert Boyle Lecture *Nationality and Race,* published twelve years earlier,[5] and have been repeated by him as recently as 1944.[6] Now, unlike von Bernhardi, Sir Arthur Keith is a distinguished physical anthropologist and, as his friends well know, a man of the noblest and most generous nature, who is himself as guiltless of anything resembling "race" prejudice as a man could well be. Nevertheless, in his treatment of the subject of "race" prejudice and war the fact is unfortunately betrayed that he has overstepped the frontiers of his own particular field, a field to which he has made lasting con-

[4] *Ibid.,* p. 50.
[5] Keith, *Nationality and Race.*
[6] Keith, see *The Literary Guide* for the year 1944.

tributions. Charles Singer has well said that "even professional men of science, when they pass beyond the frontiers of their own special studies, usually exhibit no more balanced judgment or unprejudiced outlook than do non-scientific men of comparable social and educational standing." Sir Arthur Keith's views on war and "race" prejudice may be taken as a case in point.

What, we may ask to begin with, is this "Nature," always, it is to be observed, spelled with a capital N? Keith's Nature is apparently a very intelligent being, working things out purposefully with much premeditated thought. I use the term "intelligent" here in a generic sense to cover the operations of what is conventionally understood as the intellect; I make no comment on the quality of that supposed intelligence, beyond saying that an intellect which can conceive of no better device to improve its breed than by warfare must be a very poor intellect indeed. For surely the biological vitality of a species can be preserved and improved by many immeasurably more effective means than this—means which do not necessitate or require the annihilation of a single individual. But what, in fact, *is* this Nature of von Bernhardi and Keith which, according to them, justifies "race" prejudice and renders war a biological necessity?

Apparently it is an anthropomorphism akin to the *élan-vital* of Bergson or the "life-force" of Bernard Shaw. In other words, it would appear to be some form of directing Godhead with the capital G in very much the old style, divested here and there of a few sacraments and perfectly clean shaven, but otherwise much the same. Voltaire's jibe that if God had made men after his own image they had returned the compliment is as appropriate a truth today as it ever was. Nature or God today is an anthropologist as well as a mathematical physicist—sometimes an entelechist and often enough merely a set of differential equations, unlimitedly limited and with an infinite number of functions at one and the same time, but if the truth were really known, merely a set of conditioned reflexes in the cosmic movement continuum. In fact, Nature

may mean anything, according to the whim of the user. Nature, says Aristotle, makes some men slaves and others free. In Nature, says Hobbes, "the life of man is solitary, poor, nasty, brutish, and short"; it is a condition of "war of every man against every man," in which "the notions of right and wrong, justice and injustice have no place" and "force and fraud are the two cardinal virtues." "The state all men are naturally in," replies Locke, is "a state of perfect freedom to order their actions . . . as they think fit, within the bounds of the law of nature . . . a state of equality." "Nature," writes Wordsworth, "to me was all in all, she never did betray the heart that loved her." "Nature," rejoins Tennsyson, "red in tooth and claw, shrieks against the creed of man." And as Professor A. F. Pollard has remarked of these antinomies, "Some see red, others see God, it all depends upon the kingdom that is within them." In fact, Nature is the name we give to the projection of the totality of our ignorance concerning the forces which are conceived to be involved in or responsible for the generation of life and its maintenance. Nature is not a "thing-in-itself" which operates upon other things; the term denotes rather, if it denotes anything at all, an artificial construct whose purpose is to serve as a general stereotype for our ignorance, in addition to serving as a *deus ex machina* to which, in a quandary, we may appeal in order to be comfortably relieved of our perplexities. For most people to say that a thing is "natural" explains it. But does it? What do we mean by "natural"? Prejudices are natural according to Keith and others, prose according to Monsieur Jourdain, warfare according to von Bernhardi, and the golden lie according to Plato and some of his modern successors. Nature, it is said, is the universe of things as made or produced. Nature, it is further added, operates according to definite laws. All, in fact, is determined by law. The movements of the planets are determined by laws as immutable as those which determine the behavior of a dog or a man. But all this is mythical.

The universe, as far as we know, is composed of a system of ever-changing *relations*, in the form, for example, of gases,

stresses, forces, strains, velocities, dimensions, substances, and so forth, truly *ad infinitum*. Nothing in it is fixed; all is flux. Between certain limits of infinity, that is, in a given space-time continuum, the relations of certain planetary velocities, for example, may remain (relatively) constant. The recurring averages in which these relations manifest themselves may be calculated to a high degree of probability, and when so calculated they may be stated as laws. These laws are always probability laws, and are valid only as long as the relations of the planetary velocities, as well as numerous other factors, remain (relatively) constant. Should any of these relations change, the old laws will have to be modified, or entirely new ones will have to be elaborated.

With this in mind we may proceed farther. A unicellular organism living at the bottom of a stagnant pool and environed by a stable universe of stimuli will tend to undergo little change as long as the constancy of these stimuli persists, but modify its relations, the form and nature of the stimuli acting upon it, alter its environment, and if you go on long enough—let us say for a few hundred thousand million years—sufficiently and adequately varying the nature of the environmental stimuli, not to mention any possible part played by the inherent tendency of the organism to vary, you will, let us suppose, produce a man. And your man, as an organism, will obviously represent the sum of the effects of the responses to the environment organically made by his ancestors. Organically your man will be the product of an innumerable variety of conditions—the changing relations collectively called "heredity" and "environment." So will be, and so indeed is, any plant or any other form of animal life. Thus, all plant and animal life is not *produced* according to definite laws, but in response to a series of arbitrary or *chance* alterations in the relations of the conditions affecting it. Nature is thus not an intelligent teleologically directed process which acts according to predetermined law, but is a composite of chance relations which may be arbitrarily observed as unit groups of recurring averages of relations, the behavior of the independ-

ent variables, or the quanta of which are both indeterminable and unpredictable, whence the *principle of indeterminacy* or more accurately *limited measurability*. Man, indeed, owes his present supremacy to just such a series of undetermined chance relations, which may more briefly be described as an accident, the accident referred to having been initiated in the early Miocene epoch approximately some fifty million years ago, when owing, most probably, to the denudation of the forests, due to causes which can at present only be conjectured, a group of chimpanzee-gorilla like creatures resembling the extinct ape known to palaeontologists as *Sivapithecus sivalensis* were forced down from the trees and were constrained to assume a life upon the ground. This revolutionary change in their environment led ultimately to the development of all those physical characteristics which we have learned to recognize as distinctive of man. Those apes who lived in the unaffected regions stayed up in the trees, descending to earth only when, presumably, their weight became too great; they remain apes.

Was there any directive, purposeful, intelligent natural force at work here? None at all. A devastating series of environmental changes accidentally precipitated may have been responsible for the descent from the trees, or the cause may simply have been the cumulative changes produced by mutation—and all mutation is random. The colossal number of varied forms of life, extinct and living, which are to be found upon this earth today have arisen because of the operation of very similar causes. Every form of life with which we are acquainted is due, or rather owes its peculiar form, to the infinite number of changes which have been and are in process of taking place in the environment peculiar to each—the internal as well as the external environment. These changes are not regulated by law, but by chance. The processes of the universe of life are discontinuous and infinitely variable. The universe consists of an infinitely changeable and changing series of relations. Action and reaction, stimulus and response, take place always *relatively*, never *absolutely*. Nature,

in short, in the determined immutable sense of the traditionalists, does not exist save as a procrustean fiction.

The law and order that man sees in nature he introduces there, a fact of which he seems to have grown quite unconscious. Natural systems of classification work so well that, following an unconscious pragmatic principle, they are assumed to be true, or at least, representative of the truth, the latter being conventionally defined as correspondence with the reality of whatsoever it may be; in this way the tacit assumption is made that one has but to seek and one will find the law and order that is undoubtedly in nature. This process is termed "discovery."

Now, while systems of classification are of incalculable value in aiding the processes of understanding and discovery, such systems are nonetheless quite artificial and do not in any way reflect a law and order which characterizes the operation of the processes we commonly ascribe to nature itself. Nature is a fiction which uses neither measuring rod nor timetable. It is man alone who uses such instruments in order that he may the more fittingly orient himself in relation to this self-created fiction. The classificatory systems of man are *fictional devices* and merely represent the attempt—and it is a grand attempt—to unravel the tangled skein of some of the relations of the various forms of life and substance to one another, but no more. Of this man loses sight, and confuses himself with the belief that the law and order which he has worked out into an arbitrary scheme *is* the law and order according to which nature "works." *Homo additus Naturae,* remarked Bacon long ago. Nature, if it consists of anything, represents a discontinuous series of processes, a complex of entangled gossamer strands, which man attempts to gather together and spin into a web which he naïvely imagines is the *real thing,* the "real thing" being merely as he sees it, and he sees it in an infinite number of ways, according to the kingdom that is within him. Nature comes in this way to mean anything; and what may mean anything, in fact means nothing. "Nature" is a term without definite meaning. It is a personification of purely

imagined purposes. Logically the conception of nature is without the slightest value; psychologically, perhaps, the term may not be without some significance in the sense of Nietzsche's words in *The Joyful Wisdom:* "Laws and laws of nature are the remains of mythological dreaming."

Julian Huxley has, I think, adequately disposed of the type of purposive personification in which Sir Arthur Keith has indulged. "The ordinary man," he writes, "or at least the ordinary poet, philosopher, and theologian, is always asking himself what is the purpose of human life, and is anxious to discover some extraneous purpose to which he and humanity may conform. Some find such a purpose exhibited directly in revealed religion; others think that they can uncover it from the facts of nature. One of the commonest methods of this form of natural religion is to point to evolution as manifesting such a purpose. The history of life, it is asserted, manifests guidance on the part of some external power; and the usual deduction is that we can safely trust that same power for further guidance in the future.

"I believe this reasoning to be wholly false. The purpose manifested in evolution, whether in adaptation, specialization, or biological progress, is only an apparent purpose. It is just as much a product of blind forces as is the falling of a stone to earth or the ebb and flow of the tides. It is we who have read purpose into evolution, as earlier men projected will and emotion into inorganic phenomena like storm or earthquake. If we wish to work towards a purpose for the future of man, we must formulate that purpose ourselves. Purposes in life are made, not found." [7]

With respect to the "war of Nature" which is alleged to be a "universal law of Nature," that, it must be said, is pure fancy. We are told that even trees and flowers "fight." Do they? There is not the slightest evidence that they do. And if they do, what connection has this "fighting" with the warfare practiced by men? Some flowers digest insects; some plants "strangle" others. Does this constitute war between the flowers and

[7] Julian S. Huxley, *Evolution; the Modern Synthesis,* p. 576.

the insects concerned? Do the plants that strangle others have to plead guilty to murder? Are these "warlike" actions of plants and flowers advance or rearguard actions? It would be extremely helpful to know whether it is defensive or offensive war that is natural. Sir Arthur Keith believes that both are. The illegitimate use of such terms as "struggle," "fighting," "force," and so forth, when applied to plant and animal life, and the deliberate confusion of these terms with "war," occur too often and are too often allowed to pass unchallenged. Professor Pollard has entertainingly remarked of this confusion: "The sun and the moon, we suppose, declare war with great regularity because they get into opposition every month. Parties in the House of Commons are perpetually at war because they are opposed. The police wage war because they are a force; for *naturally* if we use force against a criminal, we must needs make war upon other communities. War, indeed, will last for ever, because men will never 'cease to struggle.' So the League of Nations has obviously failed whenever a stern parent is caught chastising a peccant child; and 'fighting' will go on without end because drowning men will fight for life, doctors will fight disease, and women will fight for places at drapery sales. And this is war!" [8] The semantic fallacy could not be pointed more neatly.

Man, like other creatures, kills a large number of animals for the purposes of food and various other uses. Does the process of killing and consuming these animals constitute war? In any case, is the killing of these animals either necessary or *natural?* It is neither innate in the psychophysical disposition of man nor necessary that he may live, to kill any animal whatever, or plant, for that matter, at least not for men living in the highly civilized centers of the Western World. Man's taste in food is culturally determined, like his taste in cigarettes or alcohol. In primitive conditions of life he is forced to kill animals for food and apparel, just as it was considered

[8] Pollard, "The War of Nature and a Peace of Mind," *Vincula,* Dec., 1925, pp. 60–61.

"natural" for some nations, not so long ago, to kill prisoners of war in order that the food supply might not unnecessarily be depleted. Animals in the wild state kill large numbers and varieties of other animals, where they are available, for the satisfaction of their hunger, for the very good reason that they have no other means of remaining alive—but man has. Man has immeasurably improved upon the wild ways of life of the uncultured beasts of the jungle, and there is not the slightest reason why he should revert to them. In medieval England it was considered natural and perfectly legal for all claims to real property to be settled and tried by battle. Since those days man has elaborated more peaceful means of settling such claims, not by blood, but by reason, because of an understanding and sympathy made possible by a more enlightened form of culture. For culture, if it means anything, represents the fact of man's ability to elaborate and improve upon the normal processes of the universe, commonly called Nature. It is through the agency of culture that man is able to elaborate and improve upon his original endowment. It is not so much that culture is an extension of him as that he is an extension of culture. Indeed today, by means purely cultural, man is in a position to control and regulate, in almost every possible respect, his own future evolution. He holds the power within himself of total self-extermination or more complete development, and it will be by the weakness or strength of his humanity alone that either the one or the other effect will eventually be brought about. Fundamentally, man is quite an intelligent animal, but he is a victim, alas, of the two-handed engine of his culture which distorts his mind and renders him unintelligent. Outworn traditional teachings have made of Western man a shockingly unintelligent creature, who lives under the continuous and unrelieved domination of a chaos of ideas more degrading, more stupid, more idiotic, and more saddening than it may ever be possible to describe. This confused morality has without question been substantially responsible for his present deplorable state, for the reflexes and patterns

of thought of every child born into the Western World today have been conditioned according to the prescriptions of these teachings, so that culturally Western man has come to be a function almost entirely of the reigning spirit of confusion and prejudice. And since in his conduct he functions without effort as a victim of confusion and prejudice, he arrives at the belief that it is *natural* to act and to think thus. In this way is produced the mentally and spiritually bludgeoned individual who gropes his way confusedly through life—and whose number is legion. The frustrations which he has suffered seek an outlet in aggressiveness, and it is in his world alone that today force and war still remain a legitimate and defensible means of settling a difference.

With regard to Keith's "race-prejudice," that, of course, is a purely acquired sentiment, a constellation of socially manufactured emotions, as Sir Arthur Keith would undoubtedly have known had he made as deep a study of cultural as he has of physical anthropology. Nature, according to him, secures the separation of man into permanent groups by means of the operation of "race" prejudices, which express themselves as national rivalries and jealousies, in order to produce "new and improved races of mankind." This, presumably, is a form of natural selection operating from inherited psychological bases, a form of selection peculiar to man alone, for no other animal, as far as we know, exhibits the slightest symptom of anything akin to what Sir Arthur Keith calls "race prejudice." So-called "race" prejudices among lower animals, like their so-called "natural" fears and terrors, are *acquired,* not inborn. This is probably true of the psychological barriers which exist between different groups of birds and in various other animals. Experiments on young animals first carried out by Benjamin Kidd many years ago and by numerous investigators since then conclusively prove that the so-called "instinctive" fear and terror exhibited in the presence of their allegedly natural enemies by the adult members of the species are emotions which are generally completely absent in the young and

that they are acquired only by *learning* from other members of the species or by individual experience.[9] A lamb or any other animal, for example, which has had no long association with members of its own species from whom it could have acquired the fear—or past experience with lions—will exhibit not the slightest fear of a lion when confronted with one. On the other hand, when chickens raised in complete isolation are first brought into association with other chickens they exhibit both fear and aggressive reactions.[10] A certain amount of social, of coöperative, experience would seem to be necessary if the fears nurtured by isolation or any other factors are to be overcome.

No animal or human being is born with any prejudice or fear whatever, either of snakes, mice, or the dark, to mention a few of the most familiar common fears usually considered of "instinctive" origin; all these fears, or prejudices, are *acquired* by learning and may, and usually do, act very like conditioned reflexes, simulating physical reflexes which are innate, but which in these cases are conditioned to react culturally, not biologically or instinctively.

Upon the theory that "race" prejudice is innate how are we to account for the well-authenticated fact, familiar to most people of experience, that children of one nation, brought up in the milieu of a "foreign" nation feel no prejudices whatever, in wartime or in peacetime, against the nation of their adoption, but on the contrary are generally to be found in the ranks of their adopted land fighting against the motherland of their ancestors, whether it be with ideas or with powder. No more impressive demonstration of this is to be found anywhere than in the case of the thousands of Japanese Americans who in the second World War are bravely fighting on all fronts as American citizens and soldiers against the

[9] This is not to say that certain *general* fear and aggressive reactions may not have an innate basis, they may and probably do have; but it is to deny that such reactions are innately determined for any *specific* creature or group.

[10] Brückner, "Untersuchungen zur Tiersoziologie, insbesondere zur Auflösung der Familie," *Zeitschrift für Psychologie*, CXXVIII (1933), 1–110.

axis forces. Japanese Americans have especially distinguished themselves in action against Japanese forces,[11] and many of them have received the highest decorations for bravery under fire.

A notorious example of transmutation is the case of Houston Stewart Chamberlain, the egregious author of that stupendous miracle of nonsense *The Foundations of the Nineteenth Century,* in which the spectacle is witnessed of an apostate Englishman glorifying the Teutonic spirit, the German brand of it in particular, at the expense, among others, of his ancestral land and heritage. One may well wonder what happened to Chamberlain's "birthright" of prejudice when as an adult he became a champion of German prejudices. Possibly William James's law of transitoriness of instinct may be invoked here. And what shall we say of the author of the *Religio Medici,* who wrote, "I am of a constitution so general, that it consorts and sympathiseth with all things; I have no antipathy, or rather idosyncrasy, in anything. Those national repugnances do not touch me, nor do I behold with prejudice the French, Italian, Spanish, or Dutch"? As we have seen in an earlier chapter, there is every reason to believe that race sentiment and antipathies are comparatively recent developments in the societies of Western man.

In America, where white and black populations frequently live side by side, it is an indisputable fact that white children do not learn to consider themselves superior to Negro children until they are told that they are so, a fact which is beautifully illustrated by the words of a white American farmer from the South who, in answer to the query as to what he thought of the Negro replied, "I ain't got anything against niggers; I was fourteen years old before I know'd I was better than a nigger." Numerous other examples could be cited of the cultural acquisition of prejudices, but we have already dealt with the mechanism of "race" prejudice upon an earlier

[11] Full accounts of the activities of Japanese-American members of the forces of the United States may be read in the Japanese-American newspaper *Pacific Citizen,* published at Salt Lake City, Utah.

page, where we have seen that all ideas of "race" prejudice are inherited in just the same manner as are our clothes, not innately, but culturally. The statement so frequently heard that "war is a universal and everlasting law of Nature" is at best a shallow judgment, for it seems never to occur to those who make it that the conflicts which they are pleased to term "war" and which are alleged to take place between animals in the wild state are pertinent only in referring to conflicts between animals of widely separated species, genera, orders, and, almost universally, classes. Thus, mammals prey upon reptiles, reptiles upon birds, and birds upon insects. Under certain conditions lions will attack almost anything that moves; so will, to a lesser extent, wolves and hyenas; domestic cats will kill small rodents and birds; monkeys will kill and eat birds and insects; but in all these examples, selected at random, not a single animal will fight with a member of its *own* species in the sense that it will fight with members of other species, orders, or classes of animals.

In the wild state it is not usual for animals of one species to prey upon or to fight with each other, but rather to attack only animals of very different species. To this rule there are very few exceptions. Of course, very hungry animals will devour, upon occasion, members of their own species, but this is a form of conduct which is normally resorted to only because of extreme necessity. In serious conflicts between wild or domesticated animals of the same species the fight is rarely between more than two individuals, and usually the causes and the motives which have provoked the fight are similar to those which influence men, namely, the will to possess a sexually desirable mate or an object of physical value such as food. Gibbons feed contentedly in the same tree with monkeys such as macaques and langurs, but will not tolerate the presence of another gibbon group of the same species. Practically all vertebrates defend their territorial boundaries against invasion by members of other groups of their own species. But this sort of defensive fighting is very different from war. War is an organized attack of one community upon another community, and

as such is never fought by animals other than those of the "human" variety. It is impossible to produce a single instance from the animal kingdom, outside of man, to show that within a definite species a form of behavior resembling warfare is waged by one group of its members upon any other order or class of animals—as a means of improving the species or what not.

If one thing is certain, it is that it is *not* natural for members either of the same species or of any other to wage "war" upon one another.[12] As Dr. L. P. Jacks wrote, while the first World War was raging, "there is nothing in the life of the lowest beasts which can be compared for utter senselessness with the mutual rending to pieces of the nations." War, let it be said at once, is the most unnatural, the most artificial, of all animal activities, for it originates in artificial causes, is waged by artificial entities called States, and is fought from artificial motives, with artificial weapons, and for artificial ends. Like our civilization, war is an artificial product of that civilization itself, the civilization that has been achieved by the repeal and the repudiation of those very processes of so-called Nature which our von Bernhardis are pleased to regard as an everlasting universal law.[13]

We have already seen that there is good reason to believe that aggressive "race" sentiment and prejudice is a comparatively recent acquisition of man. So, too, there is very good reason to believe that warfare is but a recent development resulting from the artificial and perverted activities of men living in highly civilized groups. Among the extinct varieties

[12] It is even likely that the ants, who are in any event too far removed from man to have any relevance for his behavior, form no exception to this rule. See Maier and Schneirla, *Principles of Animal Psychology*, pp. 164 ff., and Schneirla, "'Cruel' Ants—and Occam's Razor," *Journal of Comparative Psychology*, XXXIV (1942), 79–83. "One species of animal may destroy another and individuals may kill other individuals, but *group* struggles to the death between numbers of the same species, such as occur in human warfare, can hardly be found among non-human animals," Allee, *The Social Life of Animals*, pp. 241–42.

[13] For an interesting discussion of "animal warfare," in which the author extends the meaning of "warfare" to embrace attacks upon animals of widely separated species, see Quincy Wright, *A Study of War*, pp. 42–52, 479–518.

of men of whom we have any knowledge no evidence of anything resembling warfare has ever been found. Plenty of weapons of a rather simple nature have been discovered in association with the remains of ancient man, but they were clearly for use against animals, not against himself. Adam Smith long ago pointed out that a hunting population is always thinly spread over a large area and possesses but little accumulated property. Primitive man was, and in many cases still is, a hunter, and no doubt, as is the case among most existing primitive peoples, his hunting grounds were marked off by definite boundaries, boundaries separating different communities; "these boundaries were sacred, and as no one would think of violating them they could not form a cause of war."

"Savages," writes Ellis, "are on the whole not warlike, although they often try to make out that they are terribly bloodthirsty fellows; it is only with difficulty that they work themselves up to fighting pitch and even then all sorts of religious beliefs and magical practices restrain warfare and limit its effects. Even among the fiercest peoples of East Africa the bloodshed is usually small. Speke mentions a war that lasted three years; the total losses were three men on each side. In all parts of the world there are people who rarely or never fight; and if, indeed . . . the old notion that primitive people are in chronic warfare of the most ferocious character were really correct, humanity could not have survived. Primitive man had far more formidable enemies than his own species to fight against, and it was in protection against these, and not against his fellows, that the beginnings of co-operation and the foundations of the State were laid." [14]

War came into being only after men had begun to cultivate the land upon which it was necessary for them to settle permanently. Such an agricultural stage of development, we know, first appeared among men not more than twenty thou-

[14] Ellis, *The Philosophy of Conflict*, pp. 51–52. Ellis was here summarizing the work of Holsti, *The Relation of War to the Origin of the State*. For a confirmatory view see Quincy Wright's chapter "Primitive Warfare," in *A Study of War*, pp. 53–100.

sand years ago, in the Magdalenian Age.[15] The agricultural life results in the accumulation of property, the accumulation of property results in more or less organized industry, industry in wealth, wealth in power, power in expansive ambitions, and the desire to acquire additional property—the source of additional power—necessary to gratify those ambitions, and thus, by no very complicated process, in war. Such conditions, which are peculiar to the industrial civilizations of today, are, of course, highly artificial, as are the prejudices and the "race" sentiment which they serve to generate.

In the modern world undoubtedly the most potent cause of war is economic rivalry, a purely cultural phenomenon having no biological basis whatever. The desire for foreign concessions and markets, an increase in population, desire for *Lebensraum*, such things will upon little provocation set nations in opposition and at each other's throats.[16] It is from such economic causes that patriotism, chauvinism, and the widespread fear of aggression which more than anything else serves to consolidate the group and is responsible for the generation of "race" sentiment and prejudice, is born. As Malinowski has put it, "human beings fight not because they are biologically impelled but because they are culturally induced, by trophies as in head-hunting, by wealth as in looting, by revenge as in punitive wars, by propaganda as it occurs under modern conditions." [17]

If all this is true, then it is apparent that war arises not as the result of natural or biological conditions but from purely artificial social conditions created by highly "civilized" modes of living.

With respect to the "natural antagonisms" with which man is alleged to be endowed, it may be said at once that these are pure creations of Sir Arthur Keith's imagination, for cer-

[15] Childe, *Man Makes Himself*.

[16] See Bernhardi, *Germany and the Next War*, for a most illuminating exemplification of this view.

[17] Malinowski, "War—Past, Present, and Future," in Clarkson and Cochran (editors), *War as a Social Institution*, pp. 23–24.

tainly there exists no evidence that man is born with any antagonisms whatever. The evidence is, on the other hand, quite contrary to such a suggestion. Sir Charles Sherrington has set out some of this evidence in his masterly book *Man on His Nature,* while Professor W. C. Allee has recently given reasons together with some of the evidence, observational, inductive, and experimental, which indicate that the spirit of altruism, of coöperation, is very much more natural to man than is that of egoism or antagonism. "After much consideration," writes Professor Allee, "it is my mature conclusion, contrary to Herbert Spencer, that the coöperative forces are biologically the more important and vital. The balance between the coöperative, altruistic tendencies and those which are disoperative and egoistic is relatively close. Under many conditions the coöperative forces lose. In the long run, however, the group-centered, more altruistic drives are slightly stronger.

"If coöperation had not been the stronger force, the more complicated animals, whether arthropods or vertebrates, could not have evolved from the simpler ones, and there would have been no men to worry each other with their distressing and biologically foolish wars. While I know of no laboratory experiments that make a direct test of this problem, I have come to this conclusion by studying the implications of many experiments which bear on both sides of the problem and from considering the trends of organic evolution in nature. Despite many known appearances to the contrary, human altruistic drives are as firmly based on an animal ancestry as is man himself. Our tendencies toward goodness, are as innate as our tendencies toward intelligence; we could do well with more of both." [18]

Many years ago Prince Kropotkin arrived at similar conclusions, which he set out at length in a very remarkable book.[19] More recently Professor William Patten has elabo-

[18] Allee, "Where Angels Fear to Tread: a Contribution from General Sociology to Human Ethics," *Science,* XCVII (1943), 521. See also the same author's *The Social Life of Animals.*

[19] Kropotkin, *Mutual Aid.*

rated upon the principle of coöperation in an important work.[20] Indeed, many distinguished students of the evolutionary process have dealt with the evidence emphasizing the important role which the principle of coöperation has played in evolution, but their work is only now being rescued from the neglect into which it has fallen.[21]

The tendentious habit of thinking of evolution in terms of "the struggle for existence," by means of which, it is believed, the "fittest" are alone selected for survival, while the weakest are ruthlessly condemned to extinction, is not only an incorrect view of the facts but also a habit of thought which has done a considerable amount of harm. Only by omitting any reference to such an important evolutionary force as the principle of coöperation and by viewing evolution as a process of continuous conflict between all living things can men be led to conclude that survival or development depends on successful aggression. Omitting crucial facts and basing their arguments on false premises, the muscular Darwinists could only arrive at false conclusions. As Allee says, "today, as in Darwin's time, the average biologist apparently still thinks of a natural selection which acts primarily on egoistic principles, and intelligent fellow thinkers in other disciplines, together with the much-cited man-in-the-street, can not be blamed for taking the same point of view." [22]

Certainly aggressiveness exists in nature,[23] but there is also a healthy non-ruthless competition and very strong drives toward social and coöperative behavior. These forces do not operate independently, but together, as a whole, and the evi-

20 Patten, *The Grand Strategy of Evolution.*

21 Delage and Goldsmith, *The Theories of Evolution;* Reinheimer, *Evolution By Coöperation;* Reinheimer, *Symbiosis;* Wheeler, *Social Life among Insects* and "Social Evolution," in (Cowdry, editor) *Human Biology and Racial Welfare;* Macfarlane, *The Causes and Course of Evolution;* Sherrington, *Man on His Nature;* Emerson, "Basic Comparisons of Human and Insect Societies," in *Biological Symposia,* VIII (1942), 163–67; Gerard, "Higher Levels of Integration," in *Biological Symposia,* VIII (1942), 67–87.

22 Allee, "Where Angels Fear to Tread: a contribution from General Sociology to Human Ethics," *Science,* XCVII (1943), 520.

23 Collias, "Aggressive Behavior among Vertebrate Animals," *Physiological Zoölogy,* XVII (1944), 83–123.

dence strongly indicates that of all these drives the principle of coöperation is dominant and biologically the most important. The coexistence of so many different species of animals throughout the world is sufficient testimony to the importance of that principle. It is probable that man owes more to the development of this principle than to any other in his own biological and social evolution. His future lies with its further development, not with its abrogation.[24]

Without the principle of coöperation, of sociability and mutual aid, the progress of organic life, the improvement of the organism, and the strengthening of the species becomes utterly incomprehensible.

There remains to be examined the statement given expression by Sir Arthur Keith and implied in the writings of many before him that war is nature's "pruning hook," nature's method of keeping her orchard healthy. This, of course, is supposed to mean that war acts as a process of natural selection—an idea which on the face of it is preposterously absurd, for, as everyone knows, the manner in which modern war acts is to kill off the very best members of the group while jealously preserving the worst, the mentally and bodily diseased and the otherwise generally unfit. It must, however, be freely acknowledged that on the whole up to the modern era the nations victorious in war were generally superior to the people whom they conquered—superior in the strict sense of the *military* superiority of the combatant *individuals*. In former times men actually fought with one another, the superior warrior generally killing the inferior in hand-to-hand combat. But in modern warfare the combatants scarcely ever see each other, and when they do it is not military skill or native superiority which decides who shall die, but a shell fired from a battery some five to ten miles away or a machine-gun hundreds of yards distant, or a bomb dropped from an airplane a mile above them. In actual battle the superior men are the first to go over the top; in

[24] Leake, "Ethicogenesis," *Scientific Monthly*, LX (1945), 245–253.

dangerous and generally useless raids they are the first to be chosen—and killed. Where, in all this slaughter, is there to be detected any evidence of natural selection? Selection, certainly, in that the superior are selected for death and the inferior are protected against it—in this way does modern warfare act as an agency of natural selection—for the worst.

Man has reached his present supremacy through the inhibitive and integrative powers of his mind, the ability to reject and suppress what he considers to be undesirable, the ability to *control*. Human society depends upon the maintenance of that ability of the mind to control, not so much the brute in man—for there is really nothing that is brutal in him that is not forced upon him—but those elements which under miseducation are capable of making a brute of him. All that is fine, noble, beautiful, and desirable in our civilization has been achieved through the resolute determination of individual minds not so much to conquer and to vanquish what is customarily called "Nature," red in tooth and claw, but to enlist the aid of "Nature" in the service of man and to control it effectively. All that is so ugly and inhuman and so destructive in our civilization is due to the activities of those who are anxious to exploit their fellowmen to their own advantage and use measures of control only toward that end. To them war is a profitable activity, for it increases their power as well as their fortunes. It is individuals of this order, in all countries and from the earliest historical times, who make wars, not nature. "The fault, dear Brutus, lies not in our stars, but in ourselves."

Let those who are wise enough awaken to the fact that too long have they been deceived by a chaos of ideas for which there is not the slightest basis in fact, but which represents, as Spinoza said, the errors of the ages grown hoary with the centuries. Let men realize that the flowers that bloom in the verbal spring of such thinkers as von Bernhardi, Sir Arthur Keith, and Herr Hitler have nothing whatsoever to do with either the logical case or the factual reality. Nay, in spite of Kant and others there is no instinct toward peace in man just

as there is none toward war. The early Egyptians, the Cretans, and the people of Mohenjodaro, in India, did not wage war, for the good reason that it was totally unnecessary for them to do so, since socially and economically they were entirely sufficient unto themselves. Aboriginal Australians, however, have fought with one another, because for economic reasons—such as a dog or a wife—it seemed necessary for them to do so. Men, it seems, fight only when and if they want to; there is nothing within their native structure, no *primum mobile,* no innate prejudice, save for such prejudices as have been cultivated in them by education, which forces them to do so.

The tradition of thought that renders possible such glib talk of war and its supposed natural causes as we have here surveyed represents the bequest to us from the remote past of obsolete modes of thought which are conspicuous for their profound irrationality. So powerful is this traditional detritus that it has not failed to influence many of the most respected minds of our day, to the extent of making "mathemagicians" of some of our mathematicians, casuists of some of our philosophers, and an apologist for war of the gentlest and among the most distinguished of our physical anthropologists. This tradition constitutes a Gordian knot which is so tied that to escape its bondage one must sever the knot completely—since it resists being untied. At present this tradition of thought constitutes the sole constrictive force operating upon the mind of man as well as the main impediment in the way of its rational functioning, coercing the good in him toward evil and, in short, representing a tyranny of the strongest and subtlest power. If man is to be saved from himself before it is too late, this tyranny must be broken, and this can only be achieved by the unequivocal action that must follow upon the reasoned dissolution of the errors of belief and thought that form so great a part of our traditional heritage today.[25]

25 For an admirable discussion of "race" relations and war, see Andrews, "Racial Influences," in *The Causes of War* (edited by Arthur Porritt), pp. 63–113.

12

"RACE" AND "BLOOD"

IN HIS inspiring and provocative book *Man, Real and Ideal,* Professor E. G. Conklin writes, "Ashley Montagu would discard wholly the word 'race' in the case of man because of social prejudices associated with that word and substitute for it 'ethnic group' or 'caste.' I wholly sympathize with his desire to get rid of race prejudice, but not by denying the existence of races or by giving them another name, for 'What's in a name?' "[1] These statements do not correctly represent my viewpoint, but it is not with them that I am here concerned, but with Professor Conklin's question, "What's in a name?"

What, indeed? I say that names are words and that words rule the lives of men; to that extent words are among the most important things we have to deal with in the course of our lives. I say that the meaning of most, if not all, words is to some extent emotionally determined and that man is to a large extent, a creature of emotion. It is Freud who said: "Words and magic were in the beginning one and the same thing, and even to-day words retain much of their magical power. By words one of us can give to another the greatest happiness or bring about utter despair; by words the teacher imparts his knowledge to the student; by words the orator sweeps his audience with him and determines its judgments and decisions. Words call forth emotions and are universally the means by which we influence our fellow creatures."[2] And as Henry James remarked, "all life comes back to the question of our speech—the medium through which we communicate."

Where words are concerned, there are two classes of men—those who control their words by thoughts, they are in the minority, and those whose words control their thoughts, they are

[1] Conklin, *Man; Real and Ideal,* p. 20.
[2] Freud, *Introductory Lectures on Psycho-Analysis,* p. 13.

in the great majority. The latter are the "word-supporters," the "word sentimentalists," the "racists," unconscious or declared; with them, to whom a name, a word, a very little word, often means the difference between life and death, we are here concerned.

There are many words in the vocabulary of Western man which are characterized by an exaggerated emotional content; words distinguished by a high emotional and a low rational, or reasonable, quality. "Race" is such a word; "blood" is another. The word "race" has assumed a high emotional content in relatively recent times; "blood," on the other hand, is a word which, from the beginning of recorded history, and long before that, has possessed a high emotional content.

That blood is the most immediately important constituent of the human body must have been remarked by men at a very early period in their cultural development. The weakening effect or actual death produced by an appreciable loss of blood can hardly have escaped their notice. Hence, the identification of blood as a vital principle of life and its endowment with special strength-giving qualities must have been almost inevitable steps in the process of endowing this red fluid with meaning. Among all primitive peoples blood is regarded as a most powerful element possessed of the most varied and potent qualities. To enumerate these and the functions they are believed able to perform would alone fill a volume.

In the cultural dynamics of Western civilization the concept of "blood" has played a significant and important role. From the earliest times it has been regarded as that most quintessential element of the body which carries, and through which is transmitted, the hereditary qualities of the stock. Thus, all persons of the same family stock were regarded as of the same "blood." In a community which mostly consisted of family lines whose members had, over many generations, intermarried with one another, it is easy to understand how, with such a concept of "blood," the community or nation would come to regard itself as of one "blood," distinct, *by blood,* from all other communities or nations. This, indeed,

is the popular conception of "blood" which prevails at the present time. Thus, for example, if one turns to the Oxford dictionary and looks under "blood," the following statement is found: "Blood is popularly treated as the typical part of the body which children inherit from their parents and ancestors; hence that of parents and children, and of the members of a family or race, is spoken of as identical, and as being distinct from that of other families or races."

As Dobzhansky has put it: "Before the re-discovery of Mendel's work the transmission of heredity was thought of in terms of inheritance of 'blood.' Parental 'bloods' mix and give rise to the 'blood' of the child which is a compromise between those of the parents. In a sexually reproducing population the available variety of 'bloods' mingle owing to intermarriage. If such a population is left undisturbed, the continuous mixing process will result in an uniform solution which will represent the 'blood' of a race or a variety. When a complete or near complete uniformity is reached you will have a 'pure race'—a group of individuals with identical germ plasms. If two races mingle, a mixed race arises; if race miscegenation ceases, a new 'pure race' will eventually result.

"It is most unfortunate," Dobzhansky adds, "that the theory of 'blood' though invalidated decades ago, still colors not merely the thinking of laymen but finds its way, explicitly or implicitly, into text books." [3]

It is this conception of "blood" as the carrier of the heritable qualities of the family, "race," or nation which has led to its application in such extended meanings as are implied in terms such as "blue-blood," "blood royal," "pure-blood," "full-blood," "half-blood," "good blood," "blood tie," or "blood relationship," and "consanguinity." Putative "racial" and national differences are, of course, recognized in such terms as "German blood," "English blood," "Jewish blood," and "Negro blood"; so that today the words "race" and "blood" have come to be used as synonyms.

[3] Dobzhansky, "Genetics and Human Affairs," *The Teaching Biologist,* XII (1943), 101–2.

When the meaning of these terms is analyzed, the manner in which the general conception of "blood" operates may be more clearly perceived. Thus, the term "blue-blood," which refers to a presumed special kind of blood supposed to flow in the veins of ancient and aristocratic families, actually represents a translation from the Spanish *sangre azul,* the "blue blood" attributed to some of the oldest and proudest families of Castile, who claimed never to have been contaminated by "foreign blood." [4] Many of these families were of fair complexion, hence in members of these families the veins would, in comparison with those of the members of the predominatingly dark-complexioned population, appear strikingly blue. Hence, the difference between an aristocrat and a commoner could easily be recognized as a difference in "blood"; one was a "blue-blood," and the other was not.

The expression "blood royal" refers to the generally accepted notion that only persons of royal ancestry have the "blood of kings" flowing in their veins. No person, however noble his ancestry may be, can be of the "blood royal" unless he has the blood of kingly ancestors in his veins. Thus, kings are held to belong to a special class of mankind principally in virtue of the supposed unique characters of their blood. In order to keep the "blood" of the royal house pure, marriages are arranged exclusively between those who are of "the royal blood." In England, for example, no member of the royal family who stands in direct line of succession to the throne may marry anyone but a member of another royal house. The most recent example of the consequence of disobeying this rule is, of course, the case of the present Duke of Windsor, who was forced to abdicate his succession to the throne of England because of his declared intention to marry a person who was not of "royal blood."

In common parlance and in the loose usage of many who should know better, terms like "full-blood" or "pure-blood,"

[4] The blood in the veins is, of course, dark red in color, while the veins themselves are white. The blue appearance of the veins through the skin is due to the refractive properties of the tissues through which they are seen.

and "half-blood" very clearly illustrate the supposed hereditary character of the blood and the manner in which, by simple arithmetical division, it may be diluted. Thus, "full-blood" and "pure-blood" are expressions which are alleged to define the supposed fact that a person is of unadulterated blood, that is, he is a person whose ancestors have undergone no admixture of "blood" with members of another "race." Within the last century these terms have come to be applied almost exclusively to persons who are not of the white race, to persons, in short, who are supposed to belong to the allegedly inferior rungs of the "racial" ladder. It is possible that this restricted usage has been determined by the fact that these expressions have generally done most service in the description of native peoples or of slaves, as in "full-blooded Negro," "pure-blood Indian," or merely "full-blood," or "pure-blood." Such a lowly association would be sufficient to secure the non-application of the term to any member of the self-styled superior "races."

A "half-blood," in contradistinction to a "full-blood," or "pure-blood," is half of one "race" and half of another—for example, the offspring of an Indian and a white. What is actually implied is that while a full-blood or pure-blood may claim relationship through both parents, a half-blood may claim relationship through one parent only. For example, a mulatto, that is, the offspring of a white and a Negro, is for all practical purposes classed with the group to which the Negro parent belongs, and his white ancestry is, for the same purposes, ignored. In practice, it often works out that the half-blood is not fully accepted by either of the parental groups, because of his "adulterated blood," and he becomes in the true sense of the expression "half-caste," belonging to neither caste; for in Western society the so-called different "races" are in reality treated as if they were different castes.

A person is said to be of "good" or "gentle" blood if he is of "noble" birth or of "good" family. Here the assumed biological determinance of social status by blood is clearly exhibited, that is to say, a person's rank in society is assumed to

be determined by his "blood," when, in fact, it is in reality the other way around, that is to say, "blood" is actually determined by rank. The ancestors of all noblemen were once common people, plebeians. It was not a sudden metamorphosis in the composition of their blood which caused them to become noble; it was rather an elevation in social status, which endowed them with supposedly superior qualities, which are not biological in any sense whatever and belong purely to the ascriptive variety of things. That is to say, they have no real, but a purely imagined, existence.

The statement that a person is of "bad blood," in the sense that he is of common or inferior character or status, is rarely encountered, for the reason, presumably, that those who use such terms have not considered the "blood" of such persons worth mentioning at all. Thus, for example, while there is an entry in the Oxford dictionary for "blood worth mention," there is *none* for blood *not* worth mention. In the sense in which "blood" is considered as the seat of emotion, "bad blood" is taken to be the physiological equivalent of ill-feeling. In this sense, of course, "bad blood" may be created between persons of "good blood."

The term "blood-relationship" and its anglicized Latin equivalent "consanguinity," meaning the condition of being of the same "blood," or relationship, by descent from a common ancestor, enshrines the belief that all biological relationships are reflected in and are to a large extent determined by the character of the blood. This venerable error, along with others, requires correction.

This brief analysis of the variety of ways in which "blood" is used and understood in the English language and in Western civilization in general renders it sufficiently clear that most people believe that blood is equivalent to heredity and that blood, therefore, is that part of the organism which determines the quality of the person. By extension, it is also generally believed that the social as well as the biological status of the person is determined by the kind of blood he has inherited. These beliefs concerning blood are probably among

the oldest beliefs surviving from the earliest days of mankind. Certainly they are found to be almost universally distributed among the peoples of the earth in very much the same forms, and their antiquity is sufficiently attested by the fact that in the graves of prehistoric men red pigments are frequently found in association with the remains. These pigments were, probably, used to represent the blood as the symbol of life and humanity, a belief enshrined in the expression "he is flesh and blood," to signify humanity as opposed to deity or disembodied spirit. There in the grave was the flesh, and the pigment was introduced to represent the blood.

As an example of a myth grown hoary with the ages for which there is not the slightest justification in scientific fact, the popular conception of blood is outstanding. Were it not for the fact that it is a bad myth, harmful in its effects and dangerous in its possible consequences, it might well be allowed to persist; but since great harm has already been done and will continue to be done unless this myth is exposed for what it is—one of the most grievous errors of thought ever perpetrated by mankind—it is today more than ever necessary to set out the facts about blood as science has come to know them.

In the first place, let it be stated at once that blood is in no way connected with the transmission of hereditary characters. The transmitters of hereditary characters are the genes which lie in the chromosomes of the germ cells represented by the spermatozoa of the father and the ova of the mother, *and nothing else.* These genes, carried in the chromosomes of a single spermatozoön and a single ovum, are the *only* parts of the organism which transmit and determine the hereditary characters. Blood has nothing whatever to do with heredity, either biologically, sociologically, or in any other manner whatsoever.

As Dobzhansky says: "Germ plasms are not miscible 'bloods.' They are sums of discrete genes which, if unlike but present in the same individual, do not mix but segregate according to the rules established by Mendel. In sexually repro-

ducing organisms, an individual inherits only one-half, not all of the genes each parent possesses; and it transmits to its children one-half of its genes. Every sex cell produced by an individual is likely to contain a somewhat different complement of genes from every other sex-cell of the same individual. Brothers and sisters have different hereditary endowments. The variety of genes present in populations of many sexually reproducing species, including man, is so great, and the number of combinations which they are capable of producing is so colossal, that it is unlikely that any two individuals (identical twins excepted) ever have exactly the same germ plasms." [5]

The belief that the blood of the pregnant mother is transmitted to the child in the womb, and hence becomes a part of the child, is ancient, but completely erroneous. Scientific knowledge of the processes of pregnancy have long ago made it perfectly clear that there is no actual passage of blood from mother to child. The developing child manufactures its own blood, and the character of its various blood cells, both morphologically and physiologically, is demonstrably different from that of either of its parents. The mother does not contribute blood to the fetus nor the fetus to the mother.[6] This fact should forever dispose of the ancient notion, which is so characteristically found among primitive peoples, that the blood of the mother is continuous with that of the child. The same belief is to be found in the works of Aristotle on generation.[7] Aristotle held that the monthly periods, which fail to appear during pregnancy, contribute to the formation of the child's body. Modern scientific investigation demonstrates that this and similar notions are quite false and thus completely dis-

[5] Dobzhansky, "Genetics and Human Affairs," *The Teaching Biologist,* XII (1943), 102.

[6] "The placenta does not normally permit transfer of the mother's red blood cells into the embryonic blood vessels, nor of those of the embryo into the mother, even though these red blood cells are only .007 millimeter (.0003 inch) in diameter. It will moreover not even pass substances which are completely soluble, in the usual sense, in the blood plasma if their molecules are of very large size; to be specific, the proteins of large molecular structure do not enter the embryo as such." Corner, *Ourselves Unborn,* p. 51.

[7] Aristotle, *De generatione animalium* i. 20.

poses of the idea of a blood-tie between any two persons, whether they be mother or child or even identical twins. Hence, any claims to kinship based on the tie of blood can have no scientific foundation of any kind. Nor can claims of group consciousness based on blood be anything but fictitious, since the character of the blood of all human beings is determined, not by their membership in any group or nation, but by the fact that they are human beings.

The blood of all human beings is in every respect the same, with only one exception, that is, in the agglutinating properties of the blood which yields the four blood groups. But these agglutinating properties and the four blood groups are present in all varieties of men, and in various groups of men they differ only in their statistical distribution. This distribution is not a matter of quality, but of quantity. There are no known or demonstrable differences in the character of the blood of different peoples. In that sense the Biblical *obiter dictum* that the Lord "hath made of one blood all nations of men to dwell on the face of the earth" [8] is literally true.

Scientists have for many years attempted to discover whether or not any differences exist in the blood of different peoples, but the results of such investigations have always been the same—*no difference has been discovered.* In short, it cannot be too emphatically or too often repeated that in every respect the blood of all human beings is identical, no matter to what class, group, nation, or ethnic group they belong. Obviously, then, since all people are of one blood, such differences as may exist between them can have absolutely no connection with blood.

Such facts, however, do not in the least deter Nazi propagandists from continuing to use the blood myth to set people against one another. The prevailing official Nazi view of the matter was presented to the Congress of the Nazi party at Nuremberg exactly six years before the invasion of Poland by the official Nazi distorter of the truth, who for some mysterious reason is called a "philosopher"—Alfred Rosenberg.

[8] *Acts* 17: 26.

"A nation," he said, "is constituted by the predominance of a definite character formed by its blood, also by language, geographical environment, and the sense of a united political destiny. These last constituents are not, however, definitive; the decisive element in a nation is its blood. In the first awakening of a people, great poets and heroes disclose themselves to us as the incorporation of the eternal values of a particular blood soul. I believe that this recognition of the profound significance of blood is now mysteriously encircling our planet, irresistibly gripping one nation after another." [9]

The concept of "race" which equates the inheritance of the individual or of the group with the transmission of hereditary characters or qualities through the blood dates from a period when the nature of heredity was not understood and the existence of such things as genes was unknown. During that period, the eighteenth and nineteenth centuries, the race concept was developed. It has been seen that this concept is false and misleading, producing absurdities of thought, and conduct which is atrocious.

The extravagant and utterly preposterous claims which the Nazis have made on the basis of the blood myth are only equaled by the superstitions which prevail among others in the same connection. These were recently given much publicity when the Red Cross segregated the blood of Negroes for the purposes of transfusion. In other words, the myth of "blood" seems almost as strongly entrenched in this country as it is among the Nazis. It will be generally agreed that this is an undesirable and dangerous situation and that the sooner the facts concerning blood are made known the better.

The astonishing thing about the objection to Negro blood is not so much that it is based upon a misconception, but that the same person who refuses to accept Negro blood may be perfectly willing to have his children suckled by a Negro wet nurse. The same person will be ready to submit to an injection of serum derived from a horse or a cow or some other animal, and while he himself may have been suckled by a Ne-

[9] *Vossische Zeitung*, 3 September 1933.

gro wet nurse and may even entertain the greatest affection for Negroes, he will violently object to any "pollution" of his blood by the injection of Negro blood into his own blood stream.

Quite clearly this is a false belief, a superstition for which there is no ground in fact, but plenty in traditional belief. In actual fact the blood of the Negro is identical with that of all other human beings, so that for purposes of transfusion, or any other purposes, it is as good as any other blood.[10]

The objection to Negro blood is, of course, based upon the antique misconception that the blood is the carrier of hereditary characters,[11] and since the Negro is regarded as possessing "racially" inferior characters, it is feared that these may be transmitted to the recipient of the transfusion. Both prejudices are groundless.

But observe how real unreal names and words may become if only they are believed to be real. If I say that certain persons belong to certain "globglubs" and that their "zebzebs" differ from my zebzebs because I belong to a different globglub, I may be talking utter nonsense; but if I believe that what I am saying is actually meaningful and true, it may be nonsense to others, but it is very fact to me. When, however, most people believe in the existence of globglubs and call them "races" and in zebzebs, which they call "blood," these words become the meaningful counters of my life, the means by which I handle "reality." But what we take for reality is often only appearance, hence, we must be on our guard against words which pass for capsules of reality, but are, in fact, nothing but imaginative inventions—bags into which we have breathed our own hot air.

10 For an excellent analysis and discussion of the character of the blood in the varieties of mankind see Lewis, *The Biology of the Negro,* pp. 82 ff.

11 It was the ancient belief that the seed comes from all parts of the body and is carried in or is merely a specialized portion of the blood. For a clear expression of this view, which has persisted down to modern times, see Hippocrates *Airs Waters Places* xiii. 14. Such views, it may here be mentioned in passing, formed the basis for the erroneous belief in the inheritance of acquired characters, for if the blood gathered the seed from every part of the body, any modification of the body would be reflected in the seed, and hence would be transmitted to the offspring.

What modern science has revealed about blood, then, renders all such words as "blood royal," "half-blood," "full-blood," "blood-relationship," and the others to which reference has been made utterly meaningless in point of fact and dangerously meaningful in the superstitious social sense.

Is it too much to expect that this false belief, the myth of blood, will soon make way for the scientifically established universal truth that all human beings, no matter of what creed or complexion they may be, are of one and the same blood?

13

MYTHS RELATING TO THE PHYSICAL CHARACTERS OF THE AMERICAN NEGRO

Among the many myths concerning "race," those which relate to the physical characters of the American Negro are of especial interest. These myths illustrate rather clearly the manner in which any trait may be seized upon and transmuted into an "inferior character" by the simple device of merely asserting it to be so.

The chief visible characters which are popularly held to distinguish the Negro from the white are the color of his skin and the form of his hair. These characters represent the immediately "visible" differences. Other characteristics in which Negroes are popularly held to differ from whites are in form of nose, length of arms and hands, "body odor," size of genitalia, size of brain, vocal cords, and so forth.

Before we proceed to examine his physical characters it should be stated that the American Negro must be regarded as one of the newest varieties of mankind. He represents the end-effect of a considerable amount of mixture between different African varieties, American Indians, and whites of every description—principally whites of British origin. Out of this mixture has emerged the unique type or ethnic group in the making represented by the American Negro. The type is even yet not fully consolidated, but is still in process of formation. All the evidence indicates that while at the present time the American Negro occupies, so far as his physical characters are concerned, a position intermediate between the African Negro on the one hand and whites and a relatively small proportion of American Indians on the other, he will, if the social barriers against intermarriage and "miscegenation" are maintained, tend to stabilize around a type which is rather more Negroid than otherwise. Even so, his physical structure will continue to be characterized by many elements bearing

the indubitable marks of his white, and to a much lesser extent, American Indian ancestry.[1]

The results of investigations thus far carried out make the following summary of the physical characters of the typical American Negro possible.[2] It is to be understood that the findings on the characters here cited have been repeatedly substantiated and confirmed by different investigators working independently of one another. The characters described here are to be read as conditions in the American Negro as compared with Old American whites,[3] or mixed Europeans.

Anthropometric Characters of Negroes

Head slightly longer and narrower
Head height less
Cranial capacity less
Hair line lower on forehead
Interpupillary distance greater
Nose height less
Bridge of nose lower
Nose broader
Prognathism (projection of upper jaw) greater
Lips thicker
External ear shorter
Torso shorter
Arm longer
Chest shallower
Pelvis narrower and smaller
Leg longer
Weight greater
Stature shorter

External Features

Skin contains greater amount of black pigment
Hair, wavy, curly, frizzly, or woolly

1 See Herskovits, *The American Negro;* Cobb, "The Physical Constitution of the American Negro," *J. Negro Education,* III (1934), 340–88; Cobb, "Physical Anthropology of the American Negro," *Amer. J. Phys. Anthrop.,* XXIX (1942), 113–223.

2 This summary is based on the work of Davenport and Love, *Army Anthropology,* 1921; Todd and Lindala, "Dimensions of the Body, Whites and American Negroes of Both Sexes," *Amer. J. Phys. Anthrop.,* XII (1928), 35–119; Davenport and Steggerda, *Race Crossing in Jamaica;* Herskovits, *The Anthropometry of the American Negro;* Cameron, and Smith, "The Physical Form of Mississippi Negroes," *Amer. J. Phys. Anthrop.,* XVI (1931), 193–201; Day, *Negro-White Families in the United States,* 1932.

3 The comparisons are made with the Old American series of Hrdlička because these represent the type of the ancestral white stock of the American Negro. See Hrdlička, *The Old Americans.*

Distribution of hair less profuse
Sweat glands in greater number[4]

A large number of characters have been omitted from this summary for several reasons; some because Negroes and whites do not differ in that respect, others because information is lacking, and still others because for them the available evidence is so unsatisfactory that it requires separate discussion. We may now briefly consider the significance of the summarized differences.

SIGNIFICANCE OF ANTHROPOMETRIC DIFFERENCES

In general the head of the American Negro is about 2 mm. longer and about 1 mm. narrower than the head of the white. In accordance with this form the Negro head is somewhat lower, about 5 mm. This difference in the height of the head is probably significantly associated with the very slightly smaller brain of the Negro. The mean cubic capacity of the Negro brain as compared with that of the white, as determined by Wingate Todd, was 1350.25 c.c. for 87 Negro males, and 1,391.08 for white males.[5] The difference, in the males, is here a matter of 41 c.c. in favor of the whites. Cranial capacity and brain weight are characters which are very variable, and there are very few observations into which the personal factor enters so much as in the determination of these characters. But when all is said and done, Todd's difference of 41 c.c. is probably as reliable and as accurate an estimate on small samples of American Negroes and whites of similar social status as it is possible to obtain. Now, in discussing head size and brain size it is necessary to bear in mind that the American Negro is some 2 mm. shorter in total stature than the

[4] Homma, "On Apocrine Sweat Glands in White and Negro Men and Women," *Johns Hopkins Hospital Bulletin*, XXXVIII (1926), 367–71; Glaser, "Sweat Glands in the Negro and the European," *Amer. J. Phys. Anthrop.* XVIII (1934), 371–76.

[5] Todd, "Cranial Capacity and Linear Dimensions," *Amer. J. Phys. Anthrop.*, VI (1923), 97–194.

white; while this difference cannot account for the whole of the difference in brain size of the Negro, it probably does account for part of that difference.

It is obvious that as far as the diameters of the head are concerned the Negro head tends to be long as compared to the tendency toward reduction in length and a compensatory increase in breadth and height in the white. Reliable evidence is lacking on the relative thickness of the bones of the Negro skull, but if there is any real difference, it must be exceedingly slight, and would make, except in very aged individuals, very little difference in the cranial capacity. In short, the size of the Negro head is very slightly smaller than that of the white, and different in shape, being long rather than broad. A difference of some 40 c.c. in cranial capacity suggests a very slightly smaller brain volume in the Negro as compared with the white. Actually, a difference of 40 c.c. is so small, falling well within the normal range of variation of white brains, that it can hardly be regarded as significant from any but a purely statistical point of view. But since a difference in brain size has formed one of the chief subjects of general discussions concerning differences between Negroes and whites, it is necessary to discuss this matter somewhat more in detail here.

As illustrating the kind of pseudo-scientific and popular beliefs which are generally held in these connections a few examples may be quoted. The following quotation is taken from a work typical of the anti-Negro literature, and is by R. W. Shufeldt, M.D., "Major, Medical Department, United States Army (Retired)."

"In the skull of the negro the cranial capacity and the brain itself is much undersized. On the average, the former will hold thirty-five fluid ounces, as against forty-five for the Caucasian skull. In the negro the cranial bones are dense and unusually thick, converting his head into a veritable battering-ram. Moreover, the cranial sutures unite very early in life. This checks the development of the brain long before that takes place in other races, and this fact accounts to some extent for

the more or less sudden stunting of the Ethiopian intellect shortly after arriving at puberty." [6]

Another example, this time from the work of a clergyman interested in race relations, may be given on the same theme:

"The older schools of anthropologists agreed among themselves in assigning to the Negro branch of humanity a smaller and a less highly developed brain than is exhibited by other races. By charts, and otherwise, some of them sought to show the areas of the Negro brain not yet developed to the standard of the Caucasian. The logical results of the findings of these men, with their prodigious industry and patience, are distinctly discouraging to the Negro. Accepting their findings, there is provided an unanswerable argument against the degradation of the white group through the absorption of the Negro group." [7]

For each of the statements made by these two writers a certain amount of support could be found in the writings of the "older anthropologists." There are also several contemporary "anthropologists" who would lend many of these statements their support. To what lengths certain writers can go in these matters, may be illustrated by the case of Professor Lidio Cipriani, of the National Museum and the University of Florence, Italy. During the progress of the Italian campaign in Ethiopia Professor Cipriani published a book for the purpose of justifying that campaign, and here we have Professor Cipriani's own summary of Chapter V of this remarkable work:

"Researches conducted on the brain of the African and on its physiological and psychological functions reveal the existence of a mental inferiority which it is impossible to modify and which excludes the possibility of its development in our own manner. The Africans are particularly unadapted to assimilate European civilization. Since this depends upon the characters of the race, which are transmissible, then, with

[6] Shufeldt, *The Negro a Menace to American Civilization*, p. 35. This book, which is dedicated to the great palaeontologist Edward Drinker Cope, is, perhaps, one of the most virulent attacks—under a pseudo-scientific guise—upon the American Negro ever to have been published.

[7] Shannon, *The Negro in Washington*, p. 320.

crossing, it is necessary to develop certain eugenical norms, above all for Europeans living in contact with the Africans. In this connection the important observations which have been made on the Negroes imported into America since the seventeenth century have the greatest value." [8]

The subjective determination and evaluation of the evidence is apparent here. One of the classical examples of unconscious bias in this field is represented by Professor R. Bennett Bean's study of the Negro brain. In this study [9] Bean described certain alleged racial differences in the Negro brain, such as its relatively small size, the reduction in the volume of the frontal and temporal lobes, and the anterior part of the corpus callosum—the great association tract connecting the two hemispheres of the brain.

Professor F. P. Mall, in whose laboratory at Johns Hopkins University this research was conducted, was so dissatisfied with Bean's interpretation of the evidence that he was led to investigate the problem for himself. It should be stated here that Mall was the outstanding American anatomist of his time and that he was responsible for training a large majority of America's most notable anatomists. Utilizing the racial criteria of Bean and others, Mall and his colleagues were quite unable to distinguish Negro from white brains, and after pointing out the technical, instrumental, and personal errors, and contradictory results involved in Bean's work, he concluded: "In this study of several anatomical characters said to vary according to race and sex, the evidence advanced has been tested and found wanting. It is found, however, that portions of the brain vary greatly in different brains and that a very large number of records must be observed before the norm will be found. For the present the crudeness of our method will not permit us to determine anatomical characters due to race, sex or genius and which if they exist, are completely masked by the large number of marked individual

[8] Cipriani, *Un assurdo etnico: L'Impero Etiopico*, p. 177.

[9] Bean, "Some Racial Peculiarities of the Negro Brain," *Amer. J. Anatomy*, V (1906), 353–415.

variations. The study has been still further complicated by the personal equation of the investigator. Arguments for difference due to race, sex and genius will henceforward need to be based upon new data, really scientifically treated and not on the older statements." [10]

Similar criticisms of Bean's work were made by Wilder,[11] but up to the present time a rigorously controlled scientific study of the Negro brain, as compared with that of the white, has not appeared.

Poynter and Keegan noted that the Negro brain generally displays "a prominent parietal lobe in contrast to the 'ill filled' frontal region." [12] But quite clearly this so-called characteristic merely represents an accommodation of the shape of the Negro head, which, it will be recalled, is longer, narrower, and lower than the head of the white. Poynter and Keegan wisely recognize that since their findings demonstrate that the Negro brain displays characters which fall within the limits of variation of the white brain "it is not possible to establish a single morphological feature which can be claimed as absolutely characteristic." Similarly, Fischer concluded that "the convolutions and the furrows or sulci between them vary so much from individual to individual that no racial distinctions can be ascertained." [13]

Levin, of the Bechterew Institute for Brain Research at Leningrad, has recently shown, in a discussion of the whole problem, that the available evidence affords no ground whatsoever for any belief in racial or "inferiority signs" in human brains, whether they be of great men or of "savages." [14]

Actually, if the Negro brain is somewhat smaller than that of the white, the difference will be found to be so small that

[10] Mall, "On Several Anatomical Characters of the Human Brain, Said to Vary According to Race and Sex," *Amer. J. Anatomy,* IX (1909), 1–32.

[11] Wilder, *The Brain of the American Negro.*

[12] Poynter and Keegan, "A Study of the American Negro," *J. Comparative Neurology,* XXV (1915), 183–202.

[13] Fischer, "Variable Characters in Human Beings," in Baur, Fischer, and Lenz, *Human Heredity,* pp. 114–66.

[14] Levin, "Racial and 'Inferiority' Characters in the Human Brain," *Amer. J. Phys. Anthrop.,* XXII (1937), 345–80.

it can hardly be considered in any way significant for the mental functioning of the Negro as compared with that of the white. Within the limits of normal variation, differences in brain size have about as much relation to intelligence and cultural achievement as differences in body size, and as far as the available evidence goes, that is none. The Negro Kaffirs and Amaxosa of Africa, the Japanese, the American Indians, the Eskimos, and the Polynesians all have brains which are larger than those of the average whites. On the same grounds as the white proclaims himself superior to the Negro, he should proclaim these peoples superior to himself—thus far, however, there is no evidence that he is likely to do so. The fact is that the external morphology of the human brain, or the characters of size and weight, have little or nothing to do with its functional capacities; these, on the other hand, must be considered as due to a complex of characters, such as the genetically determined internal (microscopic) structure of the cells and neurones and the organization to which these are subjected by experience, the abundance of the blood vessels, the character of their walls, and the efficiency of the drainage.[15]

Upon these matters we have no evidence adequate enough for a definitive judgment beyond the statement that at the present time there exists no evidence in support of the popular belief that significant differences exist between the brain of the Negro and that of the white.

With respect to the commonly repeated statement that the cranial sutures in the Negro unite earlier than in other races, "and thus cause a stunting of the Ethiopian intellect shortly after arriving at puberty," it can now quite definitely be stated, as a result of the fundamental studies of Todd and Lyon on suture closure in Negroes and whites, that no significant differences in the character of suture closure exists between the two groups. The authors conclude their studies with the statement "We repeat that there is one modal type of

[15] Donaldson, "The Significance of Brain Weight," *Arch. Neurology and Psychiatry,* XIII (1925), 385–86; Bonin, "On the Size of Man's Brain as Indicated by Skull Capacity," *J. Comparative Neurology,* LIX (1934), 1–28; Klineberg, *Race Differences,* pp. 77–92.

human suture closure upon outer and inner faces of the cranium, common to White and Negro stocks." [16]

As far as the growth and development of the skull is concerned, there are no significant differences between Negroes and whites. There do, however, exist differences in the pattern and rate of growth in certain bones of the skull, and these differences are already apparent during fetal development; as Schultz has said, "these differences are essentially the same as those which distinguish adult Whites from adult Negroes." [17]

Thus, Limson [18] found that in Negro fetuses the occiput was more prominent and convex and the external occipital protuberance more strongly formed than in white fetuses. Limson also found that the dental arch projects farther forward and that the anterior nasal spine is smaller in Negro than in white fetuses. These are precisely the regions of differential growth which Todd and his coworkers [19] have shown to distinguish the adult Negro cranium, namely, greater expansion of the occipital bone at the back of the head and greater forward growth of the upper jaw and dental arch. This difference in the detailed growth pattern of the jaw has been shown to hold good in Negro fetuses in respect of the premaxillary bone, which tends to lose its independence later than in the white. This fact is significantly correlated, of course, with the somewhat greater projection of the upper jaw in the Negro than in the white.[20] This projection of the upper jaw is not a true *prognathism* similar to that which occurs in the anthropoid apes, for in the latter the early arrest in the growth

16 Todd and Lyon, "Cranial Suture Closure; Its Progress and Age Relationship. Part IV. Ectocranial Closure in Adult Males of Negro Stock," *Amer. J. Phys. Anthrop.*, VIII (1925), 149–68. Part I–III of these studies occur in preceding numbers of the same journal.

17 Schultz, "Fetal Growth in Man," *Amer. J. Phys. Anthrop.*, VI (1923), 389–400.

18 Limson, "Observations on the Bones of the Skull in White and Negro Fetuses and Infants," *Contributions to Embryology*, No. 136, 1932, pp. 204–22.

19 Todd, "The Skeleton," in *Growth and Development of the Child*, Part II (White House Conference on Child Health and Protection), pp. 107–9.

20 Montagu, "The Premaxilla in the Primates," *Quarterly Review of Biology*, X (1935), 182–84.

of the brain case and the continued growth of the jaws and dental arches is a syndrome which does not occur in any form of man. The projection of the upper jaw in the Negro is accentuated as compared to the conditions in the white because in the latter there is an earlier arrest of growth in the upper jaw than in the Negro. This greater growth of the maxilla in the Negro is also responsible for another apparent, though unreal, difference in the appearance of the head. This is the apparently greater projection of the white cranium beyond the face —this appearance does not reflect any real difference in the character of the cranium, but rather constitutes the reflection of the lesser projection of the jaws in the white—in whom the jaws have tended, as it were, to shrink under the top of the head rather more than in the Negro. From every point of view the reduction in the size of the upper jaw in whites must be considered unfortunate, for the resulting restriction in space is responsible for a very large number of disorders, such as failure of development of teeth, the noneruption, crowding, or rotation of teeth, deflection of the nasal septum, cleft palate and harelip, and so forth.[21] The retention of the ability for continued growth by the Negro maxilla as compared with the loss of this ability in whites would here, indubitably, confer an advantage upon the Negro.

With respect to the shape of the nose in the Negro, this is very variable, but it stabilizes around a rather shorter, flatter, and broader nose than that of the average white. It has been very cogently suggested that the broad nose and larger nasal passages of the African Negro are adapted to meet the requirements of air breathed at relatively high temperatures, whereas the relatively long narrow nose of the white is adapted to the breathing of air at relatively low temperatures. A statistical investigation of this problem supports this suggestion with a high degree of probability.[22]

[21] For a discussion of these matters see Montagu, "The Premaxilla in Man," *J. Amer. Dent. Assoc.*, XXIII (1936), 2043–57, and "The Significance of the Variability of the Upper Lateral Incisor Teeth in Man," *Human Biology*, XII (1940), 323–58.

[22] Thomson and Buxton, "Man's Nasal Index in Relation to Certain Climatic Conditions," *J. Royal Anthrop. Institute*, LIII (1923), 92–122.

Statements to the effect that the Negro nose is more primitive than that of the white are meaningless. For example, Dr. Victor Heiser has recently stated that the fact that the Philippine Negritoes "were true Negroes was shown by the one piece cartilage in their spreading noses; all other races have a split cartilage. Even the octoroons show this negroid test of Negro blood." [23] This statement was repeated and elaborated in November, 1936, in *Collier's Weekly*.

Dr. Montague Cobb has thoroughly disposed of this error by showing that no split cartilage occurs in any monkey, ape, or man and that there are no significant characters of the nasal cartilages, except those of size, which distinguish the American Negro from the white nose.[24]

Actually, the Negro nose merely exhibits a difference in form, and there is every reason to believe that the original form of the African Negro nose persisted in Africa as an adaptively valuable character and that in the American Negro the form of the nose, while still very variable, presents a form intermediate between white, American Indian, and African Negro. The greater the admixture of white ancestry, the more Caucasian does the form of the nose appear. Even so, there is a marked tendency toward persistence of the broad nose. This, among other characters, has been termed an "entrenched Negro character"; [25] that is to say, a character which shows relatively great stability under hybridization. Other such features are lip thickness, mouth width, interpupillary distance, and ear height. As for the apparently larger eye of the Negro, this is an illusion resulting from the comparatively less angular orbit of the Negro. On the other hand, Mrs. Day's very careful observations [26] very clearly show that two of Todd's most dominantly entrenched Negro characters, namely, lip thickness and breadth of nose, very readily undergo change toward

[23] Heiser, *An American Doctor's Odyssey*, p. 146.

[24] Cobb, "Your Nose Won't Tell," *Crisis*, LXV (1938), 332–36.

[25] Todd, "Entrenched Negro Physical Features," *Human Biology*, I (1930), 57–69.

[26] Day, *A Study of Some Negro-White Families in the United States*, pp. 96–99.

the type of the white lip and nose under hybridization. It would seem, however, that an appreciable amount of admixture must usually occur before these two characters actually assume the "ideal" white form.

The slope of the forehead in Negroes is not significantly different from that in whites, and we have already seen that this apparent "difference" is an illusion due to the greater "prognathism" of the Negro.

A still more significant contribution to the alleged low-foreheadedness of the Negro is the fact that the level at which the hair grows on his head is lower upon the forehead than it is in the white. Under hybridization this low level of the hair line appears to be one of the first characters to yield—as a glance through Mrs. Day's photographs of Negro-white individuals will at once show.

In African Negroes the chin is not as prominent as it is in whites, but in American Negroes the chin prominence is intermediate between the conditions in Africans and those in whites, as may be seen from Mrs. Day's figures,[27] which both Hooton and the present writer believe to show an exaggeratedly high proportion of lack of chin protrusion, 38.9 percent in females and 50.5 percent in males. It is clear, however, that chin protrusion increases with increase in the proportion of white ancestry.

In view of the fact that statements are frequently made which refer to the alleged ape-like "hands" of the Negro and his long arms or long legs, as those who make such statements see fit, we may well briefly consider these matters here.

The Negro torso is about an inch and a quarter shorter than that of the white, the Negro leg a little less than an inch and a quarter shorter.[28] The Negro arm is about an inch longer, the upper arm being relatively shorter and the forearm relatively longer than in the white. As for breadth and length of hands, Todd and Lindala found no significant

[27] *Ibid.*, p. 100.

[28] Davenport and Love, *Army Anthropology;* Todd and Lindala, "Dimensions of the Body, Whites and American Negroes of Both Sexes," *Amer. J. Phys Anthrop.*, XII (1928), 35–119.

differences in these dimensions, a fact which led these investigators to remark, "it is rather astonishing to find that the 'long narrow hand' of the Negro vanishes on the average." [29] It was considered by these authors that this finding could not be imputed to the admixture of white ancestry, since their series gave many evidences of relative purity of strain. Herskovits also failed to find any significant difference in the width of the Negro hand.[30] While the Negro hand as a whole is not longer than the hand of the whites, the fingers are, on the whole, longer, for Herskovits found that the middle finger is longer in Negroes than in whites.[31] This would then make that portion of the hand in the Negro which extends from the wrist to the base of the fingers shorter than in the white, but this supposition requires confirmation. With respect to the length of the thumb there exist some observations on the skeletal thumb in 9 African Negroes and 15 whites which indicate that the African Negro thumb is about 1.7 mm. shorter in relation to the length of the middle finger than the relative thumb length of the average Englishman.[32] These findings corroborate in a rather striking manner the earlier findings of Schultz, who found the length of the thumb in relation to the middle finger in 18 adult Negroes to be 1.8 mm. less than in 14 adult whites.[33] In relation to the length of the hand, Schultz found that in both Negro fetuses and Negro adults the thumb was relatively shorter than in whites.[34]

Hence, as far as the upper extremity is concerned it would appear that every part of it is perfectly proportionate to the other, and that the greater length of the Negro arm is actually due to a compensatory adjustment in relation to the shorter torso. As for "ape-like" characters of Negro hands or arms,

[29] *Ibid.*, p. 73.

[30] Herskovits, *The Anthropometry of the American Negro*, pp. 67–68.

[31] *Ibid.*, p. 68.

[32] Montagu, "On the Primate Thumb," *Amer. J. Phys. Anthrop.*, XV (1931), 291–314.

[33] Schultz, "The Skeleton of the Trunk and Limbs of Higher Primates," *Human Biology*, II (1930), 381–83.

[34] Schultz, "Fetal Growth of Man and Other Primates," *Quarterly Review of Biology*, I (1926), 493–95.

they are entirely wanting, both in the proportions and in the deeper structures.

The lower limb of the Negro is about 2 inches longer than in the white, and unlike the case of the arm, there is no difference in the proportions of the length of the thigh or lower leg. "The long shin of the Negro is an illusion of its circumference, as his long foot is an illusion of its flatness." [85] The length and breadth of the Negro foot show no significant differences from those features of the foot of whites and are entirely proportional to leg length.[86]

Recent attempts to show that Negro athletes enjoy an unfair advantage owing to their alleged possession of a longer heel bone and longer calf muscles, have been critically examined by Professor W. M. Cobb, who has made a careful study of this matter and has shown that many of the outstanding Negro athletes have legs and feet which are predominantly white in character and that Negroid physical characters are not in any way significantly associated with Negro athletic ability.[87] In this connection it may be noted that Malafa, in an investigation of the bodily characters of sprinters and nonathletes, carried out on 100 white students from the grammar schools of Brno, Czecho-Slovakia, found that long legs were one of the principal characters which distinguished the athletes from the nonathletes.[88] This character constitutes, of course, a selective factor—and is not correlated with race or racial characters. One more fact concerning the Negro foot. The alleged longer heel bone is nonexistent, but both in fetuses and adults is "caused entirely by a thick layer of subcutaneous fat." [89]

[85] Todd, "Entrenched Negro Physical Features," *Human Biology*, I (1929), 57–69.

[86] Todd and Lindala, "Dimensions of the Body," *American Journal of Physical Anthropology*, XII (1928), 74–75.

[87] Cobb, "Race and Runners," *J. of Health and Physical Education*, VII (1936), 1–8.

[88] Malafa, On the Bodily Differences between Sprinters and Non-Sportsmen, pp. 1–11.

[89] Schultz, "Fetal Growth of Man and Other Primates," *Quarterly Review of Biology*, I (1926), 499.

It is frequently stated that the Negro pelvis differs from that of the white in being longer and narrower. This statement is not quite true. The Negro pelvis is smaller in all its dimensions. Todd and Lindala write "The male Negro pelvis is small in all its dimensions compared with the male White and its true pelvic component is long compared with the hêight of the iliac crest over perineum or over tuber ischii. Superposed on a common bodily size the female White pelvis is relatively some 10 mm. longer and broader than the male though its absolute dimensions are less. The female Negro pelvis is relatively only 6 mm. longer than the male but 21 mm. broader." [40]

It is greatly to be doubted whether there is any truth in the common belief that because the Negro female has a narrower pelvis than the white female she is more likely to experience a less satisfactory termination to a pregnancy produced by a white male than to one by a Negro male, the suggestion here being that the rounder headed white is likely to produce a fetus which will have a larger and a rounder head than can be adequately delivered through a small narrow pelvis "intended" for the delivery of Negro-fathered children.

Caldwell and Moloy have, from the obstetrical point of view, investigated the anthropometric characters of the pelvis of Negro and white females.[41] These investigators find that female pelves may be classified into three types: (*a*) the gynecoid, or average female type, which occurs in 42 percent of Negro females and in the same percentage of white females; (*b*) the android type, more closely approximating the male form than the female pelvis, which occurs in 15.7 percent of Negro females and 32.5 percent of white females; and (*c*) the anthropoid type with a long antero-posterior diameter and a relatively narrow transverse diameter, occurring in 40.5 percent of Negroes and in slightly less than half that percentage of whites.

[40] "Dimensions of the Body," *American Journal of Physical Anthropology*, XII (1928), 97–98.

[41] Caldwell and Moloy, "Anatomical Variations in the Female Pelvis and Their Effects in Labor, with a Suggested Classification," *Amer. J. Obstetrics and Gynecology*, XXVI (1933), 479–514.

Obstetrically, the most dangerous form of the pelvis is the android type, which occurs among whites with double the frequency that it occurs among Negroes. The other two types of pelvis present no especial obstetrical difficulties. It therefore seems improbable that the form of the Negro pelvis plays any more significant role in difficult labor and delivery than in the case of white females.

Davenport and Steggerda "entertained the hypothesis that, in the case of the Black woman who carried a mulatto child *in utero*, her narrow pelvic outlet and the child's large head might offer an important disharmony." [42] In order to test this hypothesis they proceeded to examine the heads of newborn colored and white children. They found that the heads of newborn colored infants were slightly smaller at birth than those of white newborn infants, and it is quite evident from their findings that no disharmonies between pelvic outlet and shape of the head occurred in the Jamaica series examined by these authors. Data on the pelves were not available to Davenport and Steggerda, but the data which have since appeared render the suggestion of a significant disharmony of the kind hypothecated highly improbable.

Skin color is a very complex character and depends upon a multiplicity of factors for its expression. As is well known, every gradation from black to white occurs among American Negroes. The greater the admixture of white ancestry, the more white, as a rule, does the skin appear. Barnes has shown "that the percentage of Negro pigmentation of the American Negro increases quite rapidly until puberty, with a maximum at the age of 15; decreases rapidly until about the age of 35; and then decreases very slowly the remainder of life." [43] This finding is in essential agreement with the independent findings of Davenport, and of Todd and van Gorder.[44]

The inheritance of skin color is a cumulative process in-

[42] Davenport and Steggerda, *Race Crossing in Jamaica*, pp. 423–24.

[43] Barnes, "The Inheritance of Pigmentation in the Skin of the American Negro," *Human Biology*, I (1929), 321–28.

[44] Davenport, *Heredity of Skin Color in Negro White Crosses;* Todd and van Gorder, "The Quantitative Determination of Black Pigmentation in the Skin of the American Negro," *Amer. J. of Phys. Anthrop.*, IV (1921), 239–60.

volving the operation of multiple factors, the individual having the largest number of factors usually showing the character developed to the highest degree. In Negro-white crosses the genes for black pigment are not completely dominant over those for lighter color; the first generation is mulatto or intermediate in shade. The offspring of mulattoes, however, exhibit great variability of skin color, grading from black to white; and it is apparent that in the second generation variability is higher than in the first. This is an effect of multiple-factor inheritance, for owing to the large number of factors now present, they are segregated in combinations which are more distributively variable than those in the original ancestors. This form of blending inheritance is essentially Mendelian. The evidence thus far suggests that there are at least two pairs of genes conditioning skin color, yielding 9 genotypes and 5 phenotypes—assuming that the gene pairs have approximately the same effect. In reality a far wider range of phenotypes is observed, which suggests the existence of other modifying genes affecting skin color. Further investigations of a most refined and laborious nature remain to be carried out before the mechanism of the inheritance of skin color is fully understood.

Black children cannot be born to parents one of whom is "pure" white. When a colored infant is born to white parents it is proof that both the genitors carry Negro genes. Similarly, a Negress with some white genes cannot bear a white child to a pure Negro.

Black is the dominant hair color among Negroes, although red, dark brown, light brown, and gray-brown hair occurs irregularly; the lighter hair colors are more common among those with half or more white ancestry. The black color of the hair is one of the most dominantly entrenched Negro features. On the other hand, hair form is, interestingly enough, one of the most easily modifiable of characters. While among American Negroes every form of hair from woolly to straight is to be found, it is clear that under hybridization hair form yields most readily to the influence of new genes. This fact was strik-

ingly brought out in the classic study of Fischer [45] on the hybrids of Hottentot-Dutch ancestry in South Africa—one group with dominantly woolly hair, the other with dominantly straight hair. Fischer found that among the Rehobother Bastaards woolly hair occurred in 29 percent, frizzly or wavy hair in 49 percent, and straight in 22 percent.

Davenport and Steggerda found that among Jamaicans woolly hair occurred in 100 percent of blacks, in 86.7 percent of browns, and in 1 percent of whites. Curly hair occurred in none of the blacks, in 11.4 percent of browns, and in 30 percent of whites. Wavy hair did not occur in blacks, but was found in 2 percent of browns and in 30 percent of whites; 39.2 percent of the whites had straight hair.

In Mrs. Day's series of Negro-white families, it is very clear that hair form varies with degree of admixture. Hooton, summarizing Mrs. Day's findings, writes: "As far as our data carry us we may conclude that ½ N males, ½ N females, and even ¾ N females may exhibit the entire range of hair curvatures generally recognized, but that, if Mrs. Day's information is valid, distinctively Negroid forms of hair, such as frizzly and woolly, do not appear unless there is at least ⅜ of Negro blood in the individual." [46]

The inheritance of hair form in Negro-white crosses has been studied by Davenport,[47] who found that straight hair is a recessive condition.[48] Wavy or curly hair is a heterogeneous condition, so that wavy plus wavy yields offspring which is straight, wavy, and curly in the proportion 1:2:1. Curly plus curly yields mostly curly; yet 14 percent of the offspring show straight hair, so that it is apparent that some curly-haired parents carry the gene for straight hair as a recessive.

Straight plus wavy and straight plus curly produce a good

45 Fischer, *Die Rehobother Bastards und das Bastardierungsproblem beim Menschen.*

46 E. A. Hooton in Day, *A Study of Some Negro-White Families in the United States,* p. 85.

47 Davenport, "Heredity of Hair Form in Man," *Amer. Naturalist,* XLII (1908), 341.

48 Six types of hair form are distinguished here: straight, low waves, deep waves, curly, frizzly, and woolly.

many curly-haired offspring. Post, analyzing Mrs. Day's data, writes:

"Of the total number of 428 offspring, seventy-five have curlier hair than the more curly parent, while only forty-three have straighter hair than the straighter parent. This is all negative evidence for a general dominance of the curlier condition. . . .

"The six forms merge into each other. . . . There is no evidence for the emergence of a New American Negro type, in regard to hair form, such as Herskovits has lately described for skeletal proportions." [49]

It may, of course, be argued that the intermediate types of hair form, as well as hair color, exhibited by American Negroes, do constitute at least an approach to a new type, for the genetic behavior of hair form is, in the character of its blending, not unlike that of skin color and quite clearly shows many gradations of form, intermediate between the hair forms exhibited by African Negro and white ancestors. Thus, it would seem that Herskovits's general finding concerning the emergence of a new American Negro type holds good also for the character of the hair form.

It is a common belief that the Negro is more glabrous (i.e., destitute of hair—smoother) than whites. This belief is well-founded—for although it is still uncertain whether the Negro possesses fewer hair follicles, it is quite clear that the development of his body hair, both in thickness and in distribution, is considerably less than in the white. Danforth's investigations lead him to believe that in the Negro there has occurred a reduction in the number of hair follicles and that there is also a deficiency in the growth of individual hairs.[50] This would appear to be the most plausible explanation of the relative glabrousness of the American Negro. In an investigation of the facial hair of Negroes and whites Trotter found that there was no difference in the actual number of hairs, but

[49] R. H. Post in Day, *A Study of Some Negro-White Families in the United States*, p. 13.

[50] Danforth, "Distribution of Hair on the Digits in Man," *Amer. J. Phys. Anthrop.*, IV (1921), 189–204.

that the average thickness of the facial hairs of the Negroes was less than that of the whites; also, the hairs of Negro women were somewhat shorter than those of white women.[51]

In the Negro, as compared with the white, the general tendency toward reduction in the amount of hair and the character of its distribution has proceeded farther, as is evidenced by the reduction in the number of hair follicles on the fingers, toes,[52] arms, and hands of Negroes.[53]

In the American Negro, as is to be expected, every form of hair distribution and development may be observed; the greater the amount of white admixture, the greater the distribution and thickness of hair. These facts are well brought out in Mrs. Day's observations on Negro-white families. From these observations it would appear that facial hair reaches a medium degree of thickness in individuals with ⅜ and less of white ancestry.[54] It is highly probable that the genetic mechanisms here operative are much the same for hair distribution and thickness as for skin color and hair form, with the presence of multiple factors and the consequent segregation of intermediate forms.

On the whole, one may say that the American Negro shows a distribution of body hair and an intensity of hair growth intermediate between the condition in the African Negro and the American white.

One of the most popularly entrenched beliefs concerning the Negro is that he possesses a unique and particularly objectionable body odor. During Dollard's investigations in "Southerntown" he encountered this belief, and his references to it are worth reproducing here.

"Among beliefs which profess to show that Negro and white people cannot intimately participate in the same civilization is the perennial one that Negroes have a smell extremely dis-

51 Trotter, "A Study of Facial Hair in White and Negro Races," *Washington University Studies* (Scientific Studies), IX (1922), 273–89.

52 Danforth, "Distribution of Hair on the Digits in Man," *Amer. J. Phys. Anthrop.*, IV (1921), 189–204.

53 Davenport and Steggerda, *Race Crossing in Jamaica*, pp. 264–67.

54 Day, *A Study of Some Negro-White Families in the United States*, p. 86.

agreeable to white people. This belief is very widely held both in the South and in the North. A local white informant said that Negroes smell, even the cleanest of them. It might not be worse than other human smells, but it was certainly different. It was asserted to be as true of middle-class Negroes as of others, at least upon occasion. Another informant swore that Negroes have such a strong odor that sometimes white people can hardly stand it. He described it as a 'rusty' smell. This odor was said to be present even though they bathe, but to be somewhat worse in summer. Another white informant described the smell as 'acrid.'" Dollard states that he can detect no difference between the odor of Negroes and that of whites.[55]

Shufeldt remarks that the body odor of the Negro is "sometimes so strong that I have known ladies of our own race brought almost to the stage of emesis when compelled to inhale it for any length of time." [56] To this it may, of course, be replied, that many whites have been almost equally nauseated by the odor of their fellow whites. Members of other ethnic groups find the body odor of whites most objectionable. Thus, the great Japanese anatomist Buntaro Adachi wrote that when he first settled in Europe he found the body odor of Europeans very objectionable—strong, rancid, sometimes sweetish, sometimes bitter. As time drew on he became accustomed to it, and still later found it sexually stimulating.[57] Similar experiences will be found recounted elsewhere.[58] Body odor depends upon a very large number of factors. Human sweat is of complex structure and is a compound of the secretion of the sebaceous glands and the sweat glands proper. Among the known constituents of sweat are water, sodium chloride, phosphates of the alkaline earth, urea, creatinine, aromatic oxides, ethereal sulphates of phenol and skatoxyl, neutral fat, fatty acids, cholesterol, albumin, and iron. Depending upon the amount of these substances present at any one time, the

[55] Dollard, *Caste and Class in a Southern Town*, pp. 378–79.
[56] Shufeldt, *The Negro a Menace to American Civilization*, p. 33.
[57] Adachi, "Der Geruch der Europäer," *Globus*, LXXXIII (1903), 14–15.
[58] See Klineberg, *Race Differences*, pp. 128–31.

odor of the sweat will vary in the same individual from time to time and under different environmental and dietary conditions. Upon this subject there have been no really adequate studies. All that we at present know is that body odor varies from individual to individual within the same ethnic group and that members of different ethnic groups, and even classes, find the odor of members of other ethnic groups and classes distinctly different and frequently objectionable. Klineberg refers to "an experimental attempt to throw a little further light on this question . . . in an unpublished study by Lawrence, who collected in test tubes a little of the perspiration of White and Colored students who had just been exercising violently in the gymnasium. These test tubes were then given to a number of White subjects with instructions to rank them in order of pleasantness. The results showed no consistent preference for the White samples; the test tube considered the most pleasant and the one considered the most unpleasant were both taken from Whites." [59] Klineberg concludes: "There may be racial differences in body odors, but it is important first to rule out the factors referred to above, particularly the factor of diet, before a final conclusion is reached. It is obvious that cleanliness is also a factor of importance. In any case, the phenomenon of adaptation enters to remove any special unpleasantness arising from the presence of a strange group." [60]

Since evidence upon the reactions of unprejudiced whites are not as abundant as they might be; the present writer may record the fact that in his own experience of African and American Negroes he has never observed any particular or general difference in body odor between Negroes and whites. Furthermore, in his own household there have at various times been employed some twelve Negro maids; all of them had plenty of occasion to perspire freely, and all of them served at table. In only one case out of twelve was any odor of perspiration ever perceived by any member of our household. In this case the individual concerned was excessively

[59] *Ibid.*, p. 131. [60] *Ibid.*

fat. After the matter of her body odor was discreetly broached, it was never again perceived.

Comparative studies of the physiology and chemistry of Negroes and whites do not exist, but there do exist several studies of the sweat glands in Negroes and whites from the anatomical standpoint. To these we may now refer.

Clark and Lhamon, in a study of the sweat glands of the hands and feet of Negroes, found that these were more abundantly supplied with exocrine glands than were those of whites.[61]

Glaser, in an investigation of the sweat glands in one Bantu Negro and in one European, found that "the regional distribution of the sweat glands in the Negro agrees closely with that usually given for the European. . . . In the great majority of regions compared, however, the Bantu has more sweat glands than the European, and this is probably of considerable value to him in resisting extremes of heat." [62]

Homma, in a study of the apocrine glands of 10 Negroes and 12 whites, found that such glands occurred three times more abundantly in the Negroes than in the whites and that while such glands never occurred in the breasts of whites, they were sometimes to be found in the breasts of the Negroes.[63]

Thus, it is evident that if Negroes possess a greater number of sweat glands than whites, heat regulation under high temperatures would be more efficiently performed in them than in whites, and it is also possible that if there is any difference in the odor of their sweat, it is probably not a difference in kind, but in degree or intensity, due to the cumulative action of the number of glands involved.

As in the majority of characters in American Negroes, their sweat glands are probably intermediate in number between those of African Negroes and those in whites.

[61] Clark and Lhamon, "Observations on the Sweat Glands of Tropical and Northern Races," *Anatomical Record*, XII (1917), 139–47.

[62] Glaser, "Sweat Glands in the Negro and the European," *Amer. J. Phys. Anthrop.*, XVIII (1934), 371–76.

[63] Homma, "On Apocrine Sweat Glands in White and Negro Men and Women," *Johns Hopkins Hospital Bulletin*, XXXVIII (1926), 367–71.

It is a common belief that the penis of the Negro is appreciably larger than that of the white. The view is an old one. Blumenbach (1752–1840), the founder of the science of physical anthropology, referred to this matter as long ago as 1775. He states: "This assertion is so far borne out by the remarkable genitory apparatus of an Aethiopian which I have in my anatomical collection. Whether this prerogative be constant and peculiar to the nation I do not know." [64]

Upon this subject there exists no scientific evidence whatsoever. It is important to note here, however, that no traveler in the last few hundred years or any anthropologist who has worked in Africa has ever remarked upon any difference in the size of the genitalia in Negroes as compared with whites. In any event, the statements of untrained observers would not be of much value. In recent years, however, one brilliant young traveler and anthropologist, who has made observations in West Africa, has stated that the Negro genitals are not disproportionately larger than those of the white.[65]

Dollard commenting upon his inquiries into the sexual *mores* of "Southerntown" writes: "There is a widespread belief that the genitalia of Negro males are larger than those of whites; this was repeatedly stated by white informants. One planter, for example, said he had had visual opportunity to confirm the fact; he had gone to one of his cabins, and on entering without warning, found a Negro man preparing for intercourse. Informant expressed surprise at the size of the penis and gave an indication by his arm and clenched fist of its great length and diameter. It was further said that this impression was confirmed at the time of the draft examination of Negroes at the Southerntown Courthouse in 1917. Two physicians from other states have verified this report on the basis of draft-board experience. A Negro professional, on the other hand, did not believe that Negroes have larger genitalia than whites.

[64] Blumenbach, *De generis humani varietate nativa,* Göttingen, 1775. Translated by T. Bendyshe, "On the Natural Variety of Mankind" in *The Anthropological Treatises of Johann Friedrich Blumenbach,* p. 68.

[65] Geoffrey Gorer, quoted by Dollard, *Caste and Class in a Southern Town,* pp. 161.

He had worked in military camps where he had a chance to see recruits of both races naked, and said there is the usual variation within the races, but no uniform difference as between races." [66]

Commenting upon these statements Dollard writes: "One thing seems certain—that the actual differences between Negro and white genitalia cannot be as great as they seem to be to the whites; it is a question of the psychological size being greater than any actual differences could be . . . the notion is heavily functional in reference to the supposed dangers of sexual contact of Negroes with white women." [67]

It is probable that Dollard has here given the correct explanation of the facts, namely, that there is no actual difference in size, but that like body odor, the alleged larger size of the Negro genitalia is a function of the white's belief in the undesirability of contact with the Negro.

As an anatomist with many years of experience in American anatomical laboratories, the present writer has never had occasion to remark any appreciable difference in the size of the Negro genitalia as compared with those of whites. Medical students are anxious to confirm their beliefs in this connection, but except for an occasional case which is soon matched with a similar condition in the white in the same laboratory, the evidence is usually disappointing to the student. From my own experience I would be inclined to say that the Negro genitalia are relatively no larger than those of the white. Recalling, however, the greater leg length of the Negro, it is possible that the Negro genitalia may be proportionately larger than those of the white, but evidence for this is lacking. If there is any difference in size, then it is probably so small that the popular belief may be dismissed as but another one of the legends which have been built up about the anatomy of the American Negro.

[66] Dollard, *loc. cit.*, pp. 160–61. [67] *Ibid.*

CONCLUSION

We may conclude this survey, then, with the statement that the American Negro represents an amalgam into which has entered the genes of African Negroes, whites of many nations and social classes, and some American Indians and that as far as his physical characters are concerned the American Negro represents the successful blending of these three principal elements into a unique biological type. All his characters are perfectly harmonic, and there is every reason to believe that he represents a good and desirable biological type. His biological future is definitely bright. Should it, however, transpire that the present legislative and social barriers are maintained in his disfavor, there can be no doubt that the present blended or intermediate status of his physical characters will be much altered and that he will tend to approximate more closely the African Negro status than the white.

14

ARE THE JEWS A "RACE"?

THE Jews are almost always referred to in popular parlance as a "race"; but it is not only the man in the street who does this, for scientists, philosophers, politicians, medical men, and many other types of professional men likewise speak of the Jews as a "race." When reference is made to the Jewish "race," what is implied is that there exists a definite, though widely scattered, group of people, who are physically and behaviorally distinguishable from all other "races" —the "Jewish race."

The so-called Jewish "race" is generally held to be characterized by a combination of physical and behavioral traits which renders any member of it recognizable anywhere on earth. The physical traits are held to be short to middling stature, a long hooked nose, greasy skin, dark complexion, black, often wavy hair, thick lips, and a tendency to run to fat in women.

The characteristic behavioral traits are said to be aggressiveness, "loudness," unscrupulousness, considerable brain power, peculiar gestures, both of the hands and the face, and a quality of looking and behaving in a "Jewish" manner, hard to define, but nevertheless real.

There are many people who claim to be able to distinguish a Jew from all other people simply by the total appearance which he presents, even when his back is all that is visible to the observer.

It is not only non-Jews who assert these things and who make such claims, but the Jews as a whole have prided themselves on the "fact" that they are God's Chosen People and hence distinguished from all other peoples. Most Jews have insisted that they belong to a distinct "race" of mankind, the "Jewish race." The Jews have, in fact, presented no exception

to the general rule, that every human entity considers itself just a little better than "the others."

Whatever may be generally believed about the Jews, and whatever the latter may think of themselves, it is high time that the facts be dispassionately presented, together with an interpretation of their significance. Assertions and denials are of little value when they are based on emotion or when they are based on misinterpreted observation or both. It is only when the actual facts are clearly presented in the light of scientific investigation and correctly interpreted that assertions and denials are in order, but they are very different from those which are usually made, and they are not of the kind which is likely to appeal to persons who prefer to accept what their emotions dictate rather than be persuaded by scientific demonstration.

What, then, has the anthropologist to say in answer to the question "Are the Jews a 'race' or any other kind of entity?" Do they possess distinguishable physical and behavioral traits? If they do, why do they? Are any of these alleged traits inborn or are they all acquired?

These are some of the questions with which we shall deal in the present chapter.

Do the Jews possess a community of physical characters which marks them out as a distinct ethnic group among the peoples of mankind? To this question the answer of science is an unequivocal "No." This does not mean that the Jews are not recognizable as a distinct group, but it does mean that they are not distinguishable as such upon the basis of physical characters. If they are not distinguishable as a distinct group upon physical grounds, upon what basis then are they distinguishable as a group at all? The answer to that question is: primarily, and almost entirely, upon cultural grounds, and upon cultural grounds alone.

We may now proceed to discuss the evidence for these statements.

Our sole authority for the early physical history of the Jews is, at present, the Old Testament. The physical anthropology

of this work is far from consistent, but from it the following facts may be pieced together: The ancestors of the early Jews lived on the stretch of land skirting the western bank of the Euphrates. The home of Terah, Abraham's father, was Ur of Chaldees, close to the Persian Gulf; here and to the southwest lived numerous Arab tribes, all of whom spoke closely related languages which, after the "brownish" son of Noah, Shem, we customarily term Semitic (Shemitic). The original converts to the religion which Abraham had founded were drawn from several of these Arab tribes. Their physical differences, if any, were probably negligible. But shortly after they had established themselves as a distinct religious group intermixture commenced, first with the Canaanites of the lowlands, with whom they had traded for some time, and then with the Amorites of the highlands of the southwest. The Amorites are supposed to have been distinguished by a high frequency of red hair. The Hivites, Amalekites, Kenites, Egyptians, and the Hittites all mixed with the Jews during this early period of their history, as did many other peoples mentioned in the Old Testament.

There is good reason to believe that the peoples mentioned were characterized by somewhat different frequencies of one or more distinctive physical characters. Thus, we know that the Amorites showed a high frequency of red hair, while the Hittites, who spoke an Indo-Germanic language, presented two types, a tall, heavy bearded, hook-nosed type, and a moderately tall, beardless type with thick lips, a straight nose with wide nostrils, and sunken eyes.

Thus we see that already in the earliest period of their development the people whom we now call Jews were a much mixed group, and while for classificatory purposes they might all be lumped together as Mediterranean in type, there can be no question that they were at this period very far from being a people of "pure" ancestry. Owing to their geographic position and relations we can be virtually certain that the peoples of the East from whom the Jews originated and the

many others with whom they subsequently mixed were themselves of much mixed ancestry.

During the period of the Exodus (1220 B.C.) there was further intermixture with the peoples with whom they came into contact, principally the types embraced under the term Egyptians and probably, also, some Hamitic peoples. Some 622 crania recovered from a Jewish cemetery at Lachish, dating back to approximately 750 B. C. show marked resemblances to those of the Dynastic Egyptians.[1] This is not to suggest that all Jews at this period resembled Egyptians, but it does suggest something vastly more significant than that, namely, that already, as early as 750 B. C., there existed local groups of Jews who in their physical characters resembled, or were identical with, the population among whom they were living and differed from other groups calling themselves Jews. This is, of course, exactly the state of affairs that we encounter today, and there is every reason to believe that it has been increasingly so from the earliest times. In other words, the Jews were never at any time characterized by a community of physical characters, but generally varied according to the populations among whom they lived. This would mean either that they originated from these populations or that they had become physically identified with them as a result of intermixture. We shall see that the latter explanation is the one which most nearly agrees with the facts.

During the Diaspora the Jews have been dispersed to practically every part of the earth and have intermixed with numerous peoples. In the sixth century B. C., during the Babylonian captivity, there was some intermixture with many Mesopotamian peoples. During the Hellenistic period, in the fourth century B. C., Jews followed Alexander the Great into the Hellenistic world, into Egypt, Syria, Asia Minor, Macedonia, to mention a few of the more important regions into which they penetrated and settled. The pattern followed by

1 Risdon, "A Study of the Cranial and other Human Remains from Palestine Excavated at Tell Duweir (Lachish)," *Biometrika*, XXXI (1939), 99–166.

these Jews was identical with that which the Jews have always followed with such great success: they took over the language of the Greek-speaking populations and in general identified themselves with Hellenistic culture.

In the second century B. C., at the time of the Maccabees, there commenced the movement of the Jews into the Roman world which carried them to the farthest corners of the Roman Empire, especially to Western Europe and particularly to Spain, Italy, France, and the Rhineland of Germany. A very large number of Jews settled along the Rhine in the region of Frankfurt, Worms, Cologne, and Trier. The language spoken in that region during the Middle Ages was adopted by the Jews and is preserved, with but little modification, to this day in the form of Yiddish. It is preserved in its purest form practically unchanged to the present day in certain Cantons of Switzerland. In its Eastern European form it is spoken by many more Jews than speak Hebrew or any other single language.

During the eleventh century, at the time of the First Crusade, the plunder and massacre of the Jews by these Christian knights started a Jewish migration eastward, which was accelerated into a mass migration after the thirteenth century. These Rhineland Jews settled in what is now Galicia, Bukovina, and the southern and western Ukraine. Here they met and merged with the earlier Jewish settlements and adopted as their common language the speech of the Rhineland group, Yiddish. These came to be known as the Ashkenazim (the Hebrew name for Germany), as distinguished from the Jews of Spanish origin, the Sephardim.

It has been asserted that the modern Sephardim are a very much more homogeneous group physically than the Ashkenazim and that they "preserve with reasonable fidelity the racial character of their Palestinian ancestors." [2]

That the Sephardic Jews are less variable in their characters than the Ashkenazim is possible, since they may be slightly

[2] Coon, "Have the Jews a Racial Identity?" in *Jews in a Gentile World* (edited by I. Graeber and S. H. Britt), p. 31.

less mixed. It is, however, very greatly to be doubted that they preserve with any fidelity at all the "racial" character of their Palestinian ancestors. This is greatly to be doubted for the reason that "their Palestinian ancestors" were themselves of very different types. Indeed, it is doubtful whether anyone is today in a position to say exactly what the Palestinian ancestry of the Jews was; certainly, even less can be said concerning the anthropological characters of the groups which entered into that ancestry. At the present time it would be wisest to take the view that if there does exist a significant physical difference between the Sephardim and the Ashkenazim, then that difference is due to the somewhat different biological history of the two groups. As we shall see there are a much greater proportion of blond types among the Ashkenazim than among the Sephardim. It must be recalled that during their residence in Spain, from the beginning of the eleventh to the end of the fifteenth century, the Sephardim certainly underwent some admixture with the Moors and for some three centuries with the non-Moorish populations of Spain and Portugal.

To list the peoples with whom the Jews have at one time or another intermixed would include a very large proportion of the populations of the world. This does not mean that the Jews as a whole have undergone such mixture, but—and this is the important point—that different populations of Jews have undergone independent and different kinds and degrees of intermixture with various populations. Now, the result of such different biological experiences would be, even if the Jews had started off as a homogeneous group—which they did not—that a certain amount of diversification in physical characters would eventually be produced between different local groups of Jews. That this is actually what has occurred is proven both by the historical facts and the analysis of measurable anthropological characters. Thus, in Daghestan in the Caucasus, only 7 percent of the Jews show light-colored eyes; among German Jews in Baden, however, this percentage rises to 51.2; in the city of Vienna the percentage is 30, in Poland

45 percent, but among the Samaritans of Jerusalem it is only 11.1 percent. It is the same with hair color. Among the Samaritans only 3.7 percent showed blond hair; in Italy the percentage rises to 11.8, in Rumania to 14.7, to 17.9 in Hungary, 20.4 in England, and 29.0 in Lithuania. In the city of Riga, Latvia, the proportion is 36 percent. In Jerusalem Jewish Ashkenazi children showed 40 percent blonds and 30 percent blue eyes, while the Sephardim showed 10 percent blonds and even fewer blue eyes.

The census of schoolchildren in Germany taken in the nineteenth century under the direction of Virchow, revealed that among 75,000 Jewish children 32 percent had light hair and 46 percent light eyes.[3] In Austria these figures were 28 and 54 percent, respectively, and in England 26 and 41 percent. As Fishberg[4] long ago pointed out, these figures follow the population trends for blondness as a whole, exemplified by the figures for England, Germany, and Riga, whereas in Italy, where the population is predominantly brunette, less than 12 percent of the Jews are blond, and in the Caucasus, North Africa, and Turkestan the percentage is even less.

Even with respect to that unreliable, but much beloved child of the anthropologist, the cephalic index[5] or form of the head, the variation between different local groups of Jews is considerable. Among London Ashkenazim one finds 28.3 percent of long-heads (dolichocephals), 28.3 percent of moderately round-heads (mesocephals), and 47.4 percent of round or broad-heads (brachycephals), among South Russian Jews these figures are, respectively 1, 18, and 81 percent, for London Sephardim these figures are 17 percent dolichocephalic, and 34 percent brachycephalic; Galician and Lithuanian

[3] Virchow, "Gesammtbericht über die von der deutschen anthropologischen Gesellschaft veranlassten Erhebungen über die Farbe der Haute, der Haare und der Augen der Schulkinder in Deutschland," *Archiv für Anthropologie,* XVI (1886), pp. 275–475.

[4] Fishberg, *The Jews.*

[5] The cephalic index is determined by multiplying the maximum breadth of the head by 100 and dividing that sum by the maximum length. The three indices thus yielded are: Less than 76.0 points = long-headed (dolichocephalic), 76.0–80.9 points = medium-headed (mesocephalic), 81.0 points and over = broad-headed (brachycephalic).

Jews yield a proportion of 85 percent brachycephals and only 3.8 percent dolichocephals.

If, as is customarily done, the mean or average shape of the

TABLE 2

PERCENTAGE DISTRIBUTION OF EYE COLOR AND HAIR COLOR AMONG JEWS [a]

(The figures in parentheses refer to the females)

Region or Group	Eyes Dark	Eyes Light	Hair Dark	Hair Fair	Hair Red	Dark Type	Fair Type	Mixed Type
Poland	55.0	45.0	96.8	0.5	2.6	57.9	0.5	41.5
	(56.8)	(43.2)	(86.4)	8.0	(5.6)	(58.5)	(8.5)	(33.0)
Galicia	53.8	46.1	74.0	21.5	4.3	44.0	13.0	43.0
	(60.0)	(40.0)	(76.0)	(20.0)	(4.0)	(51.0)	(16.0)	(33.0)
Ukraine	56.7	43.3	76.4	19.3	4.3	51.3	16.2	31.0
	(61.8)	(38.1)	(83.1)	(14.0)	(2.9)	(68.6)	(6.9)	(24.3)
Southern Russia	64.8	35.2	81.7	14.8	2.4	58.1	10.5	27.9
	(75.6)	(24.4)	(83.0)	(14.6)	(3.5)	(68.3)	(4.9)	(24.4)
Lithuania	65.2	34.8	68.1	29.0	2.0	50.7	13.0	36.2
Rumania	48.7	51.3	83.3	14.7	2.8	47.0	11.0	42.2
Hungary	50.7	49.3	77.1	17.9	5.0	46.0	12.0	42.0
						(62.0)	(5.0)	(33.0)
Baden	48.8	51.2	84.9	12.8	2.3	...	...	...
England	61.3	38.7	77.6	20.4	2.5	...	...	...
	(66.8)	(33.2)	(88.1)	(11.9)	(0.0)	...	...	...
Italy	67.6	32.3	88.2	11.8	...	60.2	14.7	25.0
Bosnia	69.1	30.9	80.0	18.2	1.8	...	...	...
North Africa	83.1	16.9	92.2	5.2	2.6	76.4	4.6	19.0
Daghestan	93.0	7.0	97.0	0.5	2.5	97.0	...	3.0
Georgia	89.0	11.0	93.0	5.0	2.0	82.0	3.0	15.0
Turkestan	85.0	15.0	98.0	2.0	...	85.0	2.0	13.0
Samaritans	88.9	11.1	96.3	3.7	0.0	...	...	...
	(88.9)	(11.1)	(92.6)	0.0	(7.4)	...	...	...
Karaites	74.0	26.0	94.0	2.0	4.0	70.0	6.0	24.0
Yemen	100.0	...	100.0	...	...	100.0	...	...

[a] From Brutzkus, "Jewish Anthropology," *The Jewish People.*

head is given, a very incorrect idea is obtained of the actual conditions prevailing among the Jews so far as shape of head is concerned. It is the percentage distribution of the various head shapes in such a population which gives us a true account of these conditions. These percentage distributions show that head shape or cephalic index, like all other characters, is very variable among the Jews as a whole, the head shape of the

Jews in various countries varying substantially from one to another, as is demonstrated in the following table.

TABLE 3

PERCENTAGE DISTRIBUTION OF HEAD SHAPE (CEPHALIC INDEX) IN JEWS OF DIFFERENT REGIONS [a]

Cephalic Index	*Daghestan Caucasus*	*Europe*	*North Africa*	*Yemen Arabia*
Hyperdolichocephalic (–76)	...	2.89	25.97	71.80
Dolichocephalic (76–77)	...	7.36	24.67	14.10
Subdolichocephalic (78–79)	4.70	15.51	19.48	7.69
Mesocephalic (80–81)	6.10	25.78	13.00	2.56
Subbrachycephalic (82–83)	17.37	24.01	9.09	3.85
Brachycephalic (84–85)	23.94	15.97	6.49	...
Hyperbrachycephalic (86–)	47.89	8.47	1.30	...
Number of observations	213	2,641	77	78

[a] From Kautsky, *Are the Jews a Race?* The definitions of the cephalic index vary slightly from those generally accepted, but not enough to affect the discussion.

This table shows that Caucasian Jews have predominantly round heads, while those in North Africa, particularly those in Arabia, are predominantly long-headed and those in Europe are predominantly of intermediate type.

Sufficient, I hope, has been said concerning the origins of the Jews and of the variability of only a small selection of their physical characters, to show how very mixed and how very variable the Jews are in both their ancestry and their physical characters. From the standpoint of scientific classification, from the standpoint of physical anthropology, and from the standpoint of zoölogy there is no such thing as a Jewish physical type, and there is not, nor was there ever, even anything remotely resembling a Jewish "race" or ethnic group.

Are the Jews, then, constituted of a number of different ethnic groups distinguishable from other non-Jewish ethnic groups? The answer is "No." There are certainly many different types of Jews, but these, in general, do not sufficiently differ from the populations among whom they live to justify

their being distinguished from those populations on physical grounds and classified as distinct ethnic groups. It is quite impossible to distinguish Jews from most of the native populations among which they live in the East, in the Orient, and in many other localities. Dr. Magnus Hirschfeld, an acute observer and himself a Jew, writes of his difficulty in distinguishing Jews from non-Jews in Palestine, "for in Palestine," he writes, "there is no way of telling at first glance whether a person is a Christian, a Jew, or a Mohammedan." "Very seldom—much more seldom, anyway, than in Carlsbad or Marienbad—one sees the characteristic 'Struck' [6] heads or the Oriental beauties as they were painted in my youth by Sichel. The so-called 'Jewish nose' too, supposedly an Aramaic-Arab characteristic, is hardly more frequent than the pug-nose. Noses of 'western' or 'northern' form predominate (to use Günther's nomenclature), and the formation, too, of lips, hair, eyes and hands is hardly different from the average European types. One even sees, especially among the children, a surprisingly large number of blonde and blue-eyed types. In a kindergarten I counted 32 blondes among 54 children, that is, more than 50 percent." [7]

Anyone who has lived for any length of time in Italy will know that it is utterly impossible to tell a Jew from an Italian in that country. The same is not, however, true of all lands, for in England, in Germany, and in America it is certainly possible, with a high degree of accuracy to pick out many persons who are Jews as distinguished from non-Jews of all types. Is the fact that one can do so due to the physical characters of these persons, characters which distinguish them from the rest of the population? Again, the answer is "No!"

[6] Hermann Struck, Jewish artist who specialized in rendering the heads of Jewish orthodox "types."

[7] Hirschfeld, *Men and Women*, pp. 277–78. Hirschfeld adds: "Not pure, but mixed, races are matter of course biologically. How, then, should there be 'pure' races among the whites when we consider that every individual possesses and unites in himself a line of paternal and maternal ancestors embracing thousands, perhaps even hundreds of thousands of generations? How extraordinarily various must have been the mixture of genes over so long a period!"

There undoubtedly exists a certain quality of looking Jewish, but this quality is not due so much to any inherited characters of the persons in question, as to certain culturally acquired habits of expression, facial, vocal, muscular, and mental. Such habits do to a very impressive extent influence the appearance of the individual and determine the impression which he makes upon others.

The fact is that the Jews are neither a "race" nor an ethnic group nor yet a number of ethnic groups—no more so, indeed, than are Catholics, Protestants, or Moslems. It is, in fact, as incorrect to speak of a "Jewish race" or ethnic group as it would be to speak of a Catholic, Protestant, or Moslem "race" or ethnic group. What, then, does the term "Jew" mean? Strictly speaking, a person is a Jew by virtue of his adherence to the Jewish religion. If he is not a member of organized Judaism, then he is not a Jew.

There is, however, another sense in which a person who does not subscribe to the tenets of the Jewish religion may nevertheless be correctly described as exhibiting Jewish traits, in just the same way as we say of a person that he looks or behaves like a Frenchman, or a German, or a member of any other national group. The Jews are not a nation, but interestingly enough they have preserved cultural traits, almost everywhere, which we usually associate with differences in national culture; these traits, therefore, have a quasi-national character. The Jews, wherever they have been, have clung tenaciously to their ancient beliefs and ways of life, more so than any other Western people of whom we have any knowledge, and they have generally preserved a certain community of cultural traits. These traits are cultural traits, not biological ones. Any person who is born into or brought up in a Jewish cultural environment will acquire the traits of behavior and certain personality traits peculiar to that culture. These are the traits which make many Jews socially "visible" in many of the communities in which they live. These traits, taken collectively, differ sufficiently from those which prevail in the communities in which Jews generally live, to render them at

once distinguishable from practically all other members of each of these communities.

It is extremely difficult to define the "quality of looking Jewish," even though it is doubtful whether anyone could be found who would deny that such a quality exists. This quality is exhibited not only in the facial expression, but in the whole expression of the body—in its movements and in its gesticulations. No attempt to define this quality will be made here, because it defies definition; but that it exists in many Jews and that it is culturally determined there can be little doubt. The quality is completely lost by persons whose recent ancestors have abandoned Jewish culture for several generations and who have themselves been raised in a non-Jewish culture. It is even lost, or is never developed, in Jews who have been educated predominantly in a non-Jewish cultural environment. Jews such as the latter are Jews by religion alone, culturally they belong to whatever culture in which they have been raised and educated, be it English, French, German, Italian, or what not.

What makes certain persons or communities of persons visible or distinguishable as Jews is neither their physical appearance, nor the fact of their adherence to the religion of Judaism, but certain cultural traits which they have acquired in a Jewish cultural environment.

We have, then, a rather interesting situation: A person is never a Jew by virtue of belonging to some definite physical type, nor is a person necessarily recognizable as a Jew because he subscribes to the tenets of the Jewish religion; he is a Jew by religion, but in every other way he may be culturally non-Jewish; finally, only those persons are recognizable as Jewish who exhibit certain behavioral traits commonly associated with Jews, yet such persons may not subscribe to the Jewish religion, but to some other religion or to none at all.

We see, then, that actually it is membership in Jewish culture which makes a person a Jew, and nothing else, not even his adherence to Judaism.

It is possible to distinguish many Jews from members of

other cultural groups for the same reason that it is possible to distinguish Englishmen from such groups, or Americans, Frenchmen, Italians, and Germans. Every cultural group differs by virtue of its difference in culture from every other cultural group, and each cultural group molds the behavior of every one of its members according to its own pattern. Members of one cultural group do not readily fit into the pattern of another. Because of the complexities which characterize each separate pattern of culture, persons who have been brought up in one culture cannot and should not be expected to make a perfect adjustment to a different pattern of culture—however closely related the latter may be. Even when persons are anxious to free themselves from one culture and adopt, and bcome part of, another, such persons rarely, if ever, succeed in making the complete change. Once a cultural pattern has been woven, it is generally not possible to unravel it and weave a completely new one. The reason for this is that habits of behavior formed in early life become, in a very real sense, part of one's second nature; it is notoriously difficult to throw such habits off in later life.

This, of course, explains why persons of Jewish cultural background, or persons of any other cultural background, try as they may, usually fail to free themselves from the conditioning effects of that background.

What, in the case of persons who are recognizable as Jews, are these conditioning effects which render them distinctive to other cultural groups? Before we attempt an answer to this question it must be emphasized that not all persons who have been brought up in a Jewish cultural environment exhibit Jewish cultural traits. There are many varieties and degrees of Jewish culture, some being much less intense than others, and a large proportion of them are modified by the culture in which the family or community happens to have lived for some generations. In addition to this, some individuals take rather more readily to the gentile culture outside the home than they do to that within the home or local community, while

still others emancipate themselves very early from the domestic cultural environment.

It will be generally agreed that those persons who are readily identifiable as Jews almost always originate from the lower socio-economic classes of their community. As in all lower socio-economic classes, the conditions of life are not conducive to the development of gentle manners and refined thoughts or ways of expressing them. In fact, the very contrary is likely to be the case. Good breeding is something one does not expect from anyone but those who have enjoyed the necessary opportunities. Jews of the lower socio-economic classes are no better bred than the members of the equivalent classes of any other culture, and for the same reasons: because the struggle to keep body and soul together had been a full-time job, while the opportunities for developing into a well-bred person have been rare indeed.

What distinguishes the conduct of persons who are recognizable as Jews from other behavior is, of course, the addition of a certain cultural quality to that behavior. Thus, persons who have lived the greater part of their early life in a lower socio-economic cultural environment generally exhibit a certain coarseness and wildness of expression in their features. They habitually feel and think in certain culturally common ways, and such emotions and thoughts register themselves in the index which is provided by the thirty-two muscles of expression in the face.

Just as there is such a thing as an English, a German, a French, an Italian, and even an American cast of features, so there is such a thing as a Jewish cast of face. This cast of face is often taken to be biologically determined, but the fact is that it is culturally determined in precisely the manner which has been indicated.

Add to the culturally determined cast of face traditionally determined gesticulations of the face and body, character of speech, together with certain likewise culturally determined preferences for color combinations, style, and total ensemble

of clothes, and we have a powerful association of traits which readily enables one to distinguish certain Jewish persons from non-Jews. That all these traits are culturally determined is readily proven by the fact that every last trace of them may be completely lost in a single generation following the adoption of a non-Jewish culture.

It should be clear that no trait is in itself objectionable, but certain differences in behavior exhibited by some Jews have been so distinguished by those who see reason to do so. Many of the traits which non-Jews find objectionable in Jews are the very traits upon which some of the latter pride themselves. Aggressiveness and the habit of gesticulation with the hands, for example.

Centuries of dispossession, massacre, oppression, and discrimination have forced upon many Jews the absolute necessity of a certain amount of aggressiveness or else the inevitability of perishing. Aggressiveness is a quality of great survival value, and it is very fortunate that the Jews were able to save themselves from complete destruction by developing it to a high degree. That those who have forced the Jews to develop this quality should find it objectionable is, of course, the usual sad logic by which the wrongheaded conduct themselves in these matters. Oppression produces aggressiveness. When oppression and discrimination against the Jews shall have ceased, their aggressiveness will vanish; but as long as that oppression and discrimination continues, they will need their aggressiveness in order to hold their own in the world. From the standpoint of the scientist objectively evaluating its quality within the framework in which it functions, the aggressiveness of many Jews is a highly desirable quality, since it enables them to survive in a hostile world. With the disappearance of this hostility, the necessity for aggressiveness will disappear. But for those who maintain this hostility to object to the aggressiveness which they have forced upon the Jews is something less than reasonable.

With respect to the gesticulations of Jews, these are often called vulgar by peoples who are not given to expressing them-

selves in any other way than by speech. Such a judgment is, however, purely subjective. Many Jews regard their habits of gesticulation as a kind of auxiliary language, without which they are practically tongue-tied, and those who have studied these gestures find them very expressive indeed. Nevertheless, those who indulge in them are at once rendered identifiable thereby as Jews, in spite of the fact that non-Jews may acquire the same habits of gesticulation by association with Jews.

Interestingly enough the gestures customarily used by many Jews have been asserted to be "racially" determined. Nothing could be farther from the truth. Scientific investigation of the gestural behavior of Eastern Jews and Southern Italians living in New York City, show that the more members of each of these groups become assimilated into the so-called Americanized community, the more do they lose the gestural traits associated with the original group.[8] Gesture has no connection whatever with biological factors, but merely represents a mode of expression peculiar to certain cultural conditions alone.

We see, then, that it is, indeed, not a difficult matter to distinguish many Jews by means of certain traits which they exhibit; but it should also be clear that those traits are all *culturally* determined and have no connection whatever with inborn biological factors. Neither on physical nor on mental grounds can the Jews be distinguished as an ethnic group.

This brings us to the oft-repeated assertion that the Jews have a greater amount of brain power than other peoples. This statement is, of course, not made in order to flatter Jews, but is rather urged as something against them, because, it is held, owing to their superior brain power one is thereby placed at a disadvantage in competition with them.

Science knows of no evidence which would substantiate the claim that Jews or any other people have better brains than any other. This is not to say that such differences may not exist; they may, but if they do, science has been unable to

[8] Efron, *Gesture and Environment.*

demonstrate them. The business acumen, the scholastic, and the interpretative musical abilities of Jews have been specially cultivated. The life of the merchant has been forced upon Jews under the most unfavorable circumstances; under such conditions he has in each generation been forced to develop a sharpness of wit which would enable him to survive. Scholarship has been a revered tradition among Jews for many centuries, furthermore, it has, in the modern world, often been the one means of raising himself socially or of escaping from the depressing conditions of life in the ghetto. It is a fact that in order to make his way in the world the Jew has had to offer a great deal more than anyone else; he has simply been forced to do better than anyone else.[9]

It may be that owing to the great variety of intermixture which Jews have undergone their considerable physical variability is also exhibited in their mental capacities, that there may be a somewhat greater frequency of mentally well-endowed individuals among them. Whether this is so or not we cannot tell, and it would in any event be of no great moment if we could, for the reason that it is not so much biological as cultural factors which, other things being more or less equal, determine what a mind shall be like. As Boas has written: "Our conclusion is that the claim to biologically determined mental qualities of races is not tenable. Much less have we a right to speak of biologically determined superiority of one race over another. Every race contains so many genetically distinct strains, and the social behavior is so entirely dependent upon the life experience to which every individual is exposed, that individuals of the same type when exposed to different surroundings will react quite differently, while individuals of different types when exposed to the same environment may react the same way." [10]

The facts, then, lead to the following conclusions: Owing to the original mixed ancestry of the Jews and their subsequent

[9] The Negro, on the other hand, has been forced to the opposite extreme. In order to succeed at all he must, as a rule, do worse than anyone else. He mustn't matter.

[10] Boas, "Racial Purity," *Asia*, XL (1940), 234.

history of intermixture with every people among whom they have lived and continue to live, the Jews of different regions are neither genetically nor physically equivalent. In each country the Jews closely resemble the general population in their physical characters, but many Jews may differ from that population in behavioral characters because they have been primarily educated in a Jewish cultural environment rather than in that of the general population. As Huxley and Haddon have said: "The word *Jew* is valid more as a socio-religious or pseudo-national description than as an ethnic term in any genetic sense. Many 'Jewish' characteristics are without doubt much more the product of Jewish tradition and upbringing, and especially of reaction against external pressure and persecution, than of heredity." [11]

It would be better to call the Jews a quasi-national rather than a pseudo-national group for there is nothing "pseudo" about their nationalistic cultural traits, even though they may not be definitely recognized as a nation neatly delimited by definite geographic boundaries. It is by virtue of the traits of this quasi-Jewish national culture that a Jewish community may be said to exist and that any person exhibiting these traits may be recognized as a Jew, whether he is an adherent of the Jewish religion or not. Such traits are not inborn, but acquired, and they have nothing whatever to do with biological or so-called "racial" conditions. They are conditioned by culture alone.

A Jewish physical type has been neither preserved nor transmitted down to the present day, because such a type never existed; if such a type had existed it would long ago have been dissolved as a result of the subsequent intermixture of Jews with other peoples. What the Jews have preserved and transmitted have been neither physical nor mental "racial" traits, but religious and cultural traditions and modes of conduct.

The final conclusion is, then, that the Jews are not and never have been a "race" or ethnic group, but they are, and always have been, a socio-cultural entity best described as a "quasi-national" group.

[11] Huxley and Haddon, *We Europeans*, pp. 73–74.

15

"RACE" AND DEMOCRACY

IN THE PRESENT CONDITION of domestic and world affairs we are, all of us, daily confronted with many conflicting, contradictory, and often novel viewpoints. It must be our task, seriously undertaken, to evaluate these ideas and viewpoints for ourselves, so that we may arrive at a just decision concerning them which will enable us to act effectively and for the best interest of everyone concerned. This chapter is written from the standpoint of those who believe that democracy is the best form of government for a free and intelligent people—a form of government in which every citizen has, or may have, an effective voice in regulating the manner in which he and his fellows shall be governed.

If it be agreed that democracy is the form of government which prevails in this country and that among us live citizens who are members of different ethnic groups, it is a just and proper inquiry and in the interests of us all, to ask whether there are any physical and mental qualities peculiar to any of these groups which our social order needs to consider in the government of this country. Today, more than ever, this question needs to be asked and the evidence sympathetically discussed, for we are today facing one of those recurring periods in the history of our development in which payment is being exacted for our mistakes as well as for those of an earlier generation. Many of those mistakes are a matter of very recent history. It will serve us not at all to lament them; they have been made and have rebounded upon us. The monster that has been let loose upon the world is of our own making, and whether we are willing to face the fact or not, we are, all of us, individually and collectively, responsible for the ghastly form which he has assumed. Moreover, something of each of us has gone into the making of this Frankenstein, whose name is Hitler and Naziism. If we are to combat this monster suc-

cessfully, then we must become fully aware of the means by which we may do so. For the present conflict, at home and abroad, is as much one of ideas as of arms—ideas which are being made to infiltrate the mind in such a manner that the victim is, for the most part, unaware of what is happening until it is too late.

Let it be recalled that the second World War is the first in which ideas have been dropped from the skies, over the radio waves as well as from airplanes, before the bombs themselves began to wreak their inhuman havoc. Among these ideas, explicitly as well as in disguised form, racism played and plays a prominent part. Linking the Jews with whatever it is desired to discredit is the first step in the process of the conquest and confusion of thought. It is an old and effective device used by unscrupulous politicians for sidetracking the public attention from vital issues and from their own nefarious activities. In Europe we have witnessed the imposition of a purely mythological dogma, first upon the Jews and then upon the Poles, a dogma which deprives all those who are not so-called "Aryans" of their civil rights and of the right to earn a living. The Poles have been beaten with their own stick, for their treatment of the Jews in prewar days was based upon the very same ideas and prejudices that the Germans have now put into effect against them.[1] What may at first be practiced on a local scale may spread until it is practiced nationally, and what is practiced nationally may spread until it becomes international. One nation learns from another. It is for us to decide whether it is the spirit of the Nazi racist or the spirit of democracy, of freedom and brotherhood, which is to become both national and international.

If men have acted upon ideas and beliefs which have brought the world to its present sorry state, then surely it should be clear to everyone in his proper senses that something is seriously wrong with such ideas and beliefs. And is there anywhere anyone who can for a moment entertain a doubt upon that

[1] It is regrettable to have to record that the Polish government in exile, its army, and official representatives maintain these prejudices unchanged.

score? If humanity is to be saved, and it is no less a matter than that, every one of us must make the greatest endeavor in his power to clarify his thoughts upon this most urgent of all problems with which we, as human beings, are today faced. We have too long taken things for granted and have lived too easily off our prejudices. If it is our privilege and our right to live and work upon this earth, then we must once more clearly realize that with that privilege and that right is inseparably linked the obligation to make this earth an increasingly better and happier place for all who shall live on it.

In the free democracy of the United States of America we have every opportunity open to us to make our lives a blessing to ourselves and to all the generations which will follow us—in this great land first, and perhaps later, by our example, in all the rest of the world.

Europe, the Europe from which we all escaped, whether we came on the Mayflower or on a cargo vessel, shows us today where we shall end if we think that the shape of the nose or the color of the skin has anything to do with human values and culture. The lights in Europe have gone out, one by one; extinguished by the evil breath of men. Let us do everything in our power to keep the lights burning here, so that we may continue to live in enlightenment and to know and enjoy the benefits of a free society, benefits which will ever increase and will—soon, let us hope—extend to the uttermost limits of the earth.

How may we achieve this? The answer is in two words: "enlightened action." Action without a thoroughly sound basis in thought, that is, in analyzed fact, to support it is worthless, as is the soundest thought which is not realized in action. The first is dangerous; the second sterile. Thought without action and action without thought eventually lead to the same disastrous results.

In the preceding pages we have examined the concept of "race" in the light of its historical development, and we have analyzed it in terms of the most recent and soundest scientific evidence. We have seen how erroneous is the general concep-

tion of "race"—a conception which presupposes the existence of different groups of mankind, each believed to possess inborn physical and mental traits that are reflected in differences in national outlook, culture, social behavior, and so forth.

We have seen that far too great significance has been attributed to both the physical and the mental differences existing in some degree between different ethnic groups. Within certain broad limits we can demonstrate the physical differences, and we can observe those of culture and behavior; but the one thing that we cannot do is to prove, or demonstrate, that differences of behavior and culture have anything to do with innate or inherited qualities.

Certainly there appear to be differences in temperament, intellectual attitudes, and cultural behavior between ethnic groups; but there is no reason to believe that these differences are inborn. As we have seen, for the most part they seem to be due to differences in cultural conditions, different social backgrounds, and differences in economic conditions. The acquired nature of these differences should be strongly enough indicated to us in the United States, where these differences have been given a chance to merge into a fairly uniform character, and there has emerged, as a result, a typical American temperament or psychology, contrasting sharply with the British, French, German, and Italian psychology or temperament.

We have seen that the physical differences which exist between the varieties of mankind cannot be intelligently discussed in terms of physical or cultural superiority to one another. There are no superior or inferior groups by birth. If there are any inborn mental differences associated with the physical differences which distinguish different ethnic groups, then science has been unable to discover them. Physical differences are purely external and are only superficially associated with cultural differences existing or imputed. Yet these external differences provide a convenient peg upon which to hang all sorts of imagined internal differences, moral, intellectual, mental, and emotional. In this way physical dif-

ferences become the basis for social discrimination and the creation of social inequalities. But science is aware of no such association between external and internal characters, except, of course, such as are socially produced.

In our own society such differences of behavior and character as seem to exist between ethnic groups are due principally to inequalities in the opportunities for social and economic betterment which have been afforded them, not to unalterable inborn or hereditary differences. No ethnic group has a monopoly of good or bad hereditary qualities. The existence of any ethnic group at the present time is proof of the fact that it possesses a majority of desirable qualities, otherwise it could not have survived to the present time.

Give every ethnic group within our democracy an equal social opportunity, and it may be predicted that one will find between minds only such differences as now exist between individuals of the same ethnic group who have enjoyed equal cultural opportunities. Every human being, whatever his ethnic affiliation, differs from every other in his make-up and has had a somewhat different inheritance and different opportunities. Would not this be a very dull world were we all poured to the same mold? We should be bored to tears! But as things are, the great reservoir of diversity upon which we can draw will always serve to enliven and increase our interest in life.

The important differences are not differences between "racial" averages, but between individuals; and it is because of the existence of individual differences, which have little or nothing to do with "race," that a true democracy must aim to devote its attention to individual differences regardless of whether the individual has a narrow nose or a broad one. A democracy must recognize differences and make every possible allowance for them—the differences which individuals exhibit, not as members of different ethnic groups, but as individual citizens, individuals differing in innumerable ways and capable of making individualized contributions of all sorts to our common culture. It is for this reason that democ-

racy must be actively concerned with the task of affording every individual, regardless of group affiliation, adequate opportunities for self-development, so that the best that every individual has within him to give shall be given, both for his own happiness and for that of his fellows. We may here recall the words of a great American, Charles Sumner: "The true greatness of nations is in those qualities which constitute the greatness of the individual."

Let us be human beings first and put the dangerous myth of "race" in its proper place—in the Museum of Ugly Human Errors.

Stressing superficial differences between people only helps to maintain an illusion in our minds that there may be more fundamental differences behind them. What we, as informed and enlightened citizens living under a democratic form of government, ought to do is to stress the fundamental kinship of all mankind; to stress the likenesses that we all bear to one another; to recognize the essential unity of all mankind in the very differences which individuals of all ethnic groups display.

Every political system is capable of some improvement, and our democracy is no exception. We stand to profit immediately by giving up acting on "racial" mythology—the "racial" mythology that lurks in the minds of most of us and contributes so much to social friction. But we cannot change the conditions of social friction merely by changing our minds. As members of an unregimented thinking democracy, we should study these things in order to keep them from adding to social friction, realizing that we have been and are being snobs and that there will be a price to pay if we go on being snobs. Let us by acting upon such facts and their interpretation as have been presented in the pages of this book afford the benefits of our democracy to all who live in it, so that we may truly "promote the general welfare and secure the blessings of liberty to ourselves and our posterity." This is the principle which is enshrined in the Constitution which created the Government of the United States.

American democracy, at least in theory, is built upon the fundamental principle that all people should enjoy the same prerogatives and privileges because, by and large, they all possess the potentialities which would enable them to benefit by them, individually and mutually, and this is the first and greatest of the principles laid down in the Declaration of Independence, a document which represents the noblest and truest declaration of the principles of human liberty ever penned. Science and humane thought support this principle to the full, and Vice-President Henry Wallace has well defined it as the genetic basis of democracy.

The flaring of latent "racial" enmities in times of economic stress is an association of events which has never been more painfully evident than it is today. Everywhere in the world under conditions of economic stress "race" prejudice has become a powerful weapon with which minority groups have been beaten. Physical and cultural differences are seized upon and made the basis for group antagonism and discrimination. Trivial things, such as differences in manners, polish, social backgrounds, religious beliefs, and so forth, which if sympathetically understood would be points of interest and value, become the bases of distrust. Just as a child runs to its mother as a familiar refuge when in difficulties, so most of us run to our own group when we feel insecure, and we fancy that anyone not of our own group is a bogeyman and the cause of all our troubles. In a democracy there should be no place for such childish conduct; nor should there be for the conditions which give rise to it, namely, improper education and economic insecurity. We can remedy these conditions. We can improve education and social and economic conditions so that all men may share in them equally. The power lies within our own hands; let us then use it.

We are the result of the mixing of many different ethnic groups; every one of us is a much-mixed alloy, having all the added strength and qualities which the alloy possesses as compared with the unalloyed metal. Let us use that strength for

the common good. Yes, so that the many may become truly one.

It is a fundamental tenet of democracy that it must balance the interests of all its component groups and citizens. As we have seen, there is nothing in the nature of any group, ethnic or otherwise, which gives it less weight in the balance of democracy than any other. That being the case, we must recognize and act upon this first principle set out in our Declaration of Independence that "All men are created equal. They are endowed by their Creator with certain unalienable rights. Among these are life, liberty, and the pursuit of happiness. To secure these rights governments are instituted among men, deriving their just powers from the consent of the governed."

After one hundred and sixty years science joins hands with humanity to ask Americans whether they will accept the challenge of those words.

16

WHAT IS THE SOLUTION?

MY PURPOSE in this book has been to clarify the reader's thinking upon the much-vexed and always tendentiously discussed problem of "race," to set out the facts, criticize existing notions, make a suggestion here and there, analyze causes, and present the whole to the reader in such a way as to encourage him to draw his own conclusions concerning the kind of solution or solutions that would be most effective in solving the "race" problem.

In the preceding chapters I have carefully discussed and set out the "causes" of the "race" problem. It would seem to me that an attack upon these causes should suggest itself as the most obvious approach to the solution of the problem. If we eliminate the causes, we shall also eliminate the effects which they produce.

We saw that the term "race" itself, as it is generally applied to man, is scientifically without justification and that as commonly used the term corresponds to nothing in reality. We saw that the word is predominantly an emotional one, and we were able to trace something of its rise and development in what has invariably been a background or matrix of strong feeling and prejudiced thought. A person lacking an understanding of human nature, or any person for that matter, might, in an off-guard moment, be led to say that "in spite of" its emotional origins and character the concept of "race" has taken firm hold of the cultures of the West. But quite clearly it is not "in spite of" but "because of" its emotional history and character that the concept of "race" has taken firm hold of Western man. It is useless for man to pretend that he is the master of reason when he is in fact a creature of emotion. As Caldecott wrote:

> Logicians have but ill defin'd
> As rational the human mind,

Reason, they say, belongs to man,
But let them prove it if they can.

Let us frankly face the fact that most people are emotional creatures and use their minds mostly in order to support their prejudices. "The truth shall make ye free." But most men wish neither to know the truth nor to be free.[1] Most men wish to know the kind of things that will support them in the culture of which they form a part. That is surely readily understandable! They live by what they learn from their culture. What teachers in the classroom and instructors in the lecture-hall may tell them is, for the majority of men, of little import. What matters is what actually goes on in the world. *That* is reality, the only reality, indeed, that most men ever know. A culture lives what it believes in, not what it aspires to be. Men will fight to the death for what they believe in, but not for the ideals which they have unrealistically been told they ought to believe in and in which they have no faith. These they will combat if they conflict with their own conception of reality. For the support of such conceptions men do not generally require the sanction of scientifically established fact. Emotions, prejudices, and metaphysics are usually quite sufficient. As Stephen Spender has remarked, "Very few people in the world's history have died for the sake of 'being definite,' thinking clearly, and behaving morally without the background of a belief in any metaphysical system." As we have already seen, "race" is for most men such a conception of reality. You cannot convince a child that there is no such thing, nor can you explain the facts to him, however simply and clearly you may present them, when outside the classroom, on the street, at home, everywhere about him, he sees that "race" is a real thing. To make him see that this "real" thing has been artificially created would be a simple matter in the hands of a good teacher, but whatever she did would at once be undone by the world outside the classroom unless conditions outside

[1] Fromm, *Escape from Freedom;* Montagu, "Escape from Freedom," *Psychiatry,* V (1942), 122–29.

the classroom were favorable, which, as we know, they generally are not.

I would not for this reason lightly regard the teaching of the facts about "race" in the schools; on the other hand, I recommend such teaching unequivocally and unreservedly. But I wish to make it quite clear here that we must not expect too much from such attempts at education in the schools, for the so-called education received at school is only a small part of that larger education which men receive from direct contact with the world. It is the world men live in, not the school, and what the world teaches that is to them real. What the school teaches is unreal and theoretical. The three "r's" are in many instances the only concrete things with which it leaves them.

This is the sad and tragic state to which we have come. The dissociation between what is taught in the schools and what is taught by real life has become so glaring that the schools and all who are associated with them have fallen into something very like contempt, since as measured by the standard of successful achievement in the "real world" they do not measure up at all. "That's all right for a school child," is a common saying; or "That's academic."

It is, or should be, quite obvious, then, that education in the schools is not enough; since what is taught in the schools is not what men believe, and men will not act upon what they do not believe. As the seventeenth century Portuguese philosopher Francesco Sanchez put it, "ideas taught do not have greater power than they receive from those who are taught." What, then, must we do in order to persuade men to implement the right ideas with the power of their convictions? To present to them the right ideas is only half the task; we must also provide them with the proper supports for such ideas and eliminate the conditions which render the support of such ideas difficult. If we can remove those conditions and substitute others for them, we shall have made possible a substantial change in the beliefs of men and in many of the notions upon which they customarily act.

Do we know what those conditions are? I think we do, at

least a goodly number of them. We have seen that frustration and aggression are linked factors which play a very important part in preparing the individual personality for "racial" hostility. But we also saw that neither frustration nor aggression lead to "racial" hostility unless the conditions are such as to favor such a development. These conditions are always artificially constructed in economic, political, and social frameworks wherein "racial" hostility can be used to advantage by any group within that framework.

Quite clearly, any culture or part of a culture which finds it necessary to create and maintain hostilities between different groups of men instead of encouraging their social development by mutual exchange and coöperation of interests to the advantage of all, any culture which does the former and not the latter is obviously sick. For the great principle of biological as well as of social development is coöperation, not antagonism.

We have already seen that modern science has demonstrated that there is strong reason to believe that coöperation and altruism, have played more important roles in the evolution of animal species, including man, than have the egoistic forces in nature. A healthy competition is, I believe, desirable in any society; but it must be a competition, not in the interest alone of the individual or his particular group, but in the interest of all society, and not only of society as a whole, but of all men everywhere. No man can be free until all his fellows are free. Those who exploit their society for their own interest, whether they are aware of it or not, are working against the interest of their society. They produce imbalances, top-heaviness, disoperative rather than coöperative conditions. Obviously, where self-interest is the dominant motive of the individuals in a society, the society will be characterized by a fundamental spirit of disorganization. In such a society the individual thinks of himself first; of society last. He will so order his conduct as to attain his ends as quickly as possible without any concern for the consequences to society. If Negroes, or members of any other ethnic or minority group can

be utilized, to their disadvantage, in the attainment of those ends, there are pitifully few individuals in our culture who would hesitate not to use them so—the Declaration of Independence, the Bill of Rights, the teaching of the churches and the schools, and common human decency notwithstanding.

Who is to blame for this sorry condition? Surely not the common man! When he leaves school and goes out into the world and attempts to behave like a Christian, he very soon discovers that if he persists in the attempt he is likely to suffer the fate of Christ. In order to survive, he finds it necessary to adapt himself to the conditions of life as he finds them—which he does. In doing so he fails both himself and his society, for, let us ask ourselves, to what is it that we adapt ourselves? Without enumerating the unhappy catalogue, we may answer at once: to conditions as we find them. We accept and adapt ourselves to evil as if it were a good. Is this a failure of nerve, of courage? I do not think so. On the other hand, I believe that most men accept the world for what it is, believing that it is so ordered by some immutable power and that things are as they are because that is the way they are, and little, if anything, can be done to change them. "You can't change human nature," is the common expression of this viewpoint.

It seems to me that if what I have said is true, then our only hope lies in education of the right sort. If we can succeed in reorganizing our system of education from top to bottom, making our principal purpose the cultivation of human beings living in one great coöperative enterprise with other human beings, we shall have gone a long way toward achieving the new society.

Our educational systems have not really been educational systems at all; they are really systems of instruction. We instruct; we do not educate; and otherwise we leave the individual to shift for himself. Instruction in reading, writing, and arithmetic do not constitute a sufficient preparation for living with complex human beings in a rather complex world. In order to live happily and efficiently in such a world it is necessary to understand not only the nature of human beings but

how they came to be as we now find them, both culturally and physically. Surely, our first and last task in education should be to inspire our growing citizens with a full understanding and appreciation of humanity; in what it means to be human. The facts, the spiritual teachings, and the examples, are all ready to our hand. What is to prevent us from weaving them into the pattern of the lives which we have in our making? School boards, vested interests, and corrupt politicians are strong forces in our society; but stronger forces than they have been overcome in the past and will be again.

If a sufficient number of people can be found who are willing to unite their energies in order to secure the type of education I have suggested for the schools, or if a nation-wide movement were organized to secure it, I am confident that one of the most effective steps will have been taken toward the dissolution of the "race" problem, as well as many other problems from which we are at present suffering. I do not see that any other solution is feasible.

The facts of life assume a meaning only when they are related to action in living. The meaning of a word lies in the action it produces. We can teach children to believe in humanity, and we can teach them to act upon what they believe. We can teach them the truth about the present character of our society, and equip them to play their part in improving it, instead of subtly priming them to support the *status quo*.

It is futile to assert that every man lives in the type of society he deserves. The fact is that most men have little to do with the type of society in which they live. They are brought up in it and generally accept it unquestioningly. They may suffer to some extent themselves and be the cause of suffering in others; but they accept this kind of suffering as inevitable—in the nature of things. Their social consciousnesses are practically nonexistent.

How, then, under such conditions, can we ever hope to solve such a problem as the "race" problem? Obviously, by altering those conditions to such an extent as to produce a profound awareness in every man of his proper place in so-

ciety, to make him aware of the fact that he must become an active, not a passive, instrument in the government of his society and that government can be, and must be, for the benefit of all the people without discrimination of color, class, or creed.

One cannot teach people these things merely by saying them; they can only be made a part of an attitude of mind if they are understood at an early age as part of a whole integrated system of education in humanity.

To teach children the facts about the meaning of the many varieties of mankind is alone insufficient; as I have said, such teaching can achieve very little, unless it becomes part of a planned, integrated, complete experience in the meaning and significance of humanity.

As far as I am aware, no concerted effort has ever been made in any school to teach children generally to become human beings. It is time we commenced to do so. We must bring about a revolution in our educational system, a peaceful revolution in the interests of peaceful and humane living. I suggest that this revolution can best be brought about by the educators themselves. It is the educators of our young who are the true unacknowledged legislators of the world. It is they who produce in the average adult the trained incapacity for humane living, and it is they who are capable of making truly humane citizens of the world. The opportunity beckons to them to bring into existence, by their teaching, a new world of humanity. Surely it is unnecessary for our educators to wait until they are forced into action by the pressure of public opinion. Surely it is the task of our educators to create the public of the future, rather than to have the public of the past create the educators of the future. It has been calculated that it costs $125,000 to kill a man in this war; we could make an almost perfect human being for considerably less. Would it not be worth trying?

How shall we try? What are the specifications in the blueprint for action? What the educators must do is, I think, obvious: they must become aware of their strategic advantage,

and they must, in coöperation, take it upon themselves to reorganize the education of the young along the lines I have indicated; to teach humanity first and to regard all other education as subsidiary to this.

To assist in bringing this desirable end about, we others must organize a league for the reform of education. Such a league should at first be on a national scale, with offices in every large city and a central headquarters in Washington. Later on, its activities should be extended to an international scale. There will be no difficulty about that. The details of the program for action should be drawn up by the founders of the league in democratic session. Every person living in the United States and its possessions should be invited to become a member. Properly organized, such a league can become an enormous power for good. By its means could be secured what we have thus far failed to secure: Peace on earth, goodwill unto all men.

A very big step in this direction would be the organization of the schools, the children, and the parents for the development of mutual understanding between the members of various groups such as that initiated at Springfield, Mass., in 1939. The plan is described in the following appendix. Readers of this book can make an immediate contribution toward securing better ethnic relations by actively interesting their own communities in such a plan.

Appendix A

THE SPRINGFIELD COMMUNITY-SCHOOL PLAN IN EDUCATION FOR DEMOCRACY AND COÖPERATION

"RACISM" IS A DISEASE. It is a malfunctioning of the mind which endangers human relations, a disease due to the infection of the mind by false ideas concerning the status of other groups of human beings. In much the same way as organs become diseased as the result of the action of germs, so minds become diseased as the result of the action of wrong ideas. In August, 1939, the National Conference of Christians and Jews, having carefully studied the disease, concluded that it was impossible to eradicate "race" prejudice by counter-propaganda. What, clearly, was required, was the development of an immunity to the disease. Such immunity could, it was felt, best be secured in a systematic manner by providing children and adults with the necessary protective education. It was suggested to the Conference that it induce the school system of some representative community to develop educational means for immunizing children and adults against "racism."

In October, 1939, the Conference proposed to Dr. John Granrud, Superintendent of Schools in Springfield, Mass., that his school system should be the first to try the experiment. With great foresight and sympathetic understanding Dr. Granrud immediately accepted this suggestion and appointed a committee of nine, representing all educational levels in the school system, including supervisors, principals, and classroom teachers, to study the problems involved in organizing the program. A thorough study, lasting some six months, of the problems involved, led the committee to the following conclusions:

1. Many of the prejudices, biases, and undemocratic attitudes evident among the children are reflections of forces and factors outside the school, such as the home, the street, the club, and sometimes even the church. The program for democracy should not, therefore, be designed solely for the children in the schools, but should reach the parents and the adult world which condition the child's environment and thinking.

2. One of the major weaknesses of the previous attempts to inculcate democratic ideas is the fact that the teaching has been too idealized. Youngsters were given to understand that we in this

country had already achieved a perfect democracy. This teaching and idealization did not coincide with the realities of the youngsters' experiences. They soon became disillusioned, because their own observations invalidated the idealizations. Children were taught, for example, that this is a land of equal opportunity and that in this country people are not discriminated against because of race, religion, or creed. But the Negro girl knew very well that even though she was an excellent stenographer there was little possibility of securing a position as a stenographer; and the boy with a foreign-sounding name knew that his chances for securing a good position were not so good as those of his classmates who had the right kind of American name. The committee decided, therefore, that issues should be faced squarely; that, while a positive and affirmative position on democratic ideals would be taken, it should be emphasized that we had not yet achieved the perfect democracy which is our goal; that the weaknesses in our democratic processes should be pointed out, and that how these weaknesses could be corrected and how our democratic processes could be strengthened should be discussed realistically.

3. In order to eradicate blind and intolerant attitudes it is imperative that pupils understand all the constituent elements of our population, the historical backgrounds of these elements, and their contributions to American life.

4. Finally, it is essential that democratic ideals be presented to students in a dynamic fashion calculated to fire their enthusiasm and to inspire their devotion to democracy as the best means of achieving the good life for all our people.[1]

Here, then, were some practical aids by which to frame the program. The program was, from the outset, based on the assumption that "race" prejudice can be prevented and that mass phobias, manias, and hysterias—infectious diseases of the mind—can be controlled as infectious diseases of the body have been controlled.

The method followed is much the same as that followed in the control of any disease. The plan is to apply the same scientific-humane principles which in a lifetime have all but conquered smallpox and typhoid, which since 1900 have reduced the deaths from tuberculosis from 200 per 100,000 to less than 40. Once the germ has been isolated, a mass education campaign teaches not only the terrible cost of the plague but also the breeding places of the germs and the scientific way of eliminating them.

Various tests were applied to the children in the Springfield public schools in order to determine the distribution of the breed-

[1] Halligan, "A Community's Total War against Prejudice," *J. Educ. Sociol.*, XVI (1943), 374–80.

ing places of these germs, to determine the attitudes of the children toward Jews, Negroes, the foreign-born, and various religious groups. The tests revealed the fact that most of the prejudiced attitudes of children come from parents or other adults and from adult institutions. Special emphasis has therefore been placed on reaching the grown-ups.

Before the program was put into operation the children were also given a number of objective-type tests, especially constructed for the purpose, for "open-mindedness," "ability to distinguish between fact and opinion," "ability to analyze conflicting statements," "critical evaluation," and "support of generalizations." The data thus obtained was helpful in formulating the unit study in public opinion and how it is influenced, drawn up under the expert guidance of Dr. Clyde R. Miller, Associate Professor of Education at Teachers College, Columbia University; it also provided a basis by means of which the progress of the children could be measured. Following the public opinion unit study, the teachers discuss with children and adults how public opinion is formed, how to distinguish fact from opinion, what prejudices are, how they are developed, and how to deal with them and avoid them.

The teaching and activities are adapted to every level in the school system, and the emphasis throughout is upon coöperation, upon doing things together, on living and learning together.

HOW THE PLAN IS SET UP

In order to carry out this program two directing bodies were set up; one to function in the schools, called the Committee on Education for Democracy. This committee is appointed by the Superintendent of Schools and is representative of all educational levels in the schools, including supervisors, principals, and classroom teachers. The task of this committee is to study and advise on the problems involved in the organization and functioning of the program in the schools.

The other is a community committee for directing the community-wide program. It is broadly representative. Its membership includes leading clergymen of various faiths, representatives of different organizations in the business community, the publishers of the newspapers, labor leaders, representatives of the social agencies, spokesmen of young people's organizations, the wife of a Negro minister, leading figures in civic and club activities, the Superintendent of Schools, and the Director of Adult Education, who serves as secretary.

HOW THE PLAN FUNCTIONS

As the pupil advances through the school system, he is first given in the elementary grades an understanding of "living and working together," and he develops from the outset a comprehension of some of the fundamental concepts of democracy. Each child is encouraged to make his contribution to the group. He learns what other peoples have contributed to our civilization, and he gets a first sense of the interdependence of nations.

When he reaches the junior high school level, he is given an opportunity to develop an appreciation of the rich heritage of America. He is encouraged to build a sympathetic attitude toward all racial and nationality groups through an understanding of their cultural patterns. Specifically, he obtains knowledge of the contributions of the various nationalities to the growth not only of the United States but also of Springfield.

Senior high school students are provided with opportunities for self-government; they analyze current problems, studying both the strengths and the weaknesses of our democratic processes in order to determine how the latter can be corrected and democracy strengthened. They learn how to analyze and evaluate their own prejudices and biases and how to reach conclusions objectively.

Tests given at the end of each year have shown substantial progress at all levels in the school system.

ADULT EDUCATION

The community sponsors free public forums in school buildings and has introduced controversial subjects, competent authorities taking opposing positions. A film forum series covers many topics, including the problems of "racial," religious, and economic groups. The discussions following the films are led by experts and are focused on *local problems*. Average attendance of public forums is 1,000. A series of ten "film forums" drew an average attendance of 800.

The New England type of "town meeting" was revived when nonpartisan political meetings were sponsored in public school buildings in each of the wards. Opposing candidates speak from the same platform. People who haven't been in a school building for years renew their contact with the school system. One political rally drew an audience of 5,000.

OUTSIDE THE SCHOOL

In coöperation with the Council of Social Agencies an investigation of the conditions of domestic workers employed in private homes was undertaken and standards for fair working conditions in household employment were established. Representatives of all the major women's clubs in the city subscribed to these standards. In coöperation with the Council an investigation of the social and economic conditions of the Negro population in Springfield has been undertaken, with a view to improving those conditions. Through the School Placement Bureau slow but steady progress has been made in breaking down discrimination in employment. Training of Negroes for skilled occupations has been developed, and there are now three Negro teachers in the school system of Springfield, all appointments being made strictly on the basis of merit.

THOSE WHO LEAD ALSO LEARN

Special training courses for teachers and community leaders are given at Springfield College, with emphasis upon contemporary problems and the new tasks they impose on education.

Through newspapers, radio, meetings of all sorts, or civic groups, and through study courses given in parent-teacher meetings, the work is carried to the entire community.

SPRINGFIELD, MASSACHUSETTS

Springfield, with a population of 150,000, is an average American city. About 40 percent of the residents are of old Yankee stock, and the rest are largely of Russian, Polish, Greek, Italian, Irish, and French-Canadian extraction, with the usual Jewish and Negro minority groups. Some 60 percent are Roman Catholic.

At the time the plan was put into operation "conflicts and tensions in Springfield were typical of those in other communities. Coughlinites were fairly strong. Anti-Semitism was fairly pronounced. Opportunities for Negroes were probably fewer than in most similar communities." [2]

Furthermore, Springfield is a rather conservative community and had to be introduced gradually to the changes in the system. Nevertheless, Springfield had several advantages. It enjoyed two exceptionally fine civic-spirited newspapers. Its school system was known for its excellence, and its superintendent, Dr. Granrud, fol-

[2] Miller, "Community Wages Total War on Prejudice," *The Nation's Schools,* XXXIII (1944), 16–18.

lowed a course of practical democracy in appointing teachers. The school personnel was therefore representative of all groups, and the people had confidence in their schools.

The community has coöperated with the schools in Springfield to make the program a success. In this instance it was the teachers who led the community, but without the encouragement, by coöperation, of the community the efforts of the schools could scarcely have succeeded as well as they have.

The children have made very substantial progress in learning to think critically, and a large proportion have made considerable progress toward overcoming their prejudices as a result of the self-analysis and open discussion conducted in class. Mutual understanding of one another has been brought to many adults through the Adult Educational program. But Springfield is not yet Utopia. "We have only made a start in the great task before us," Dr. Granrud has said. "But I am profoundly convinced that significant progress has already been achieved, and as our experience and skill grow, even greater advances will be made in developing the type of citizenry which will not only strive toward but which will achieve greater promise implicit in the democratic way."

The experiment in education for democracy which has been so successfully initiated and tried in Springfield will, it is hoped, be tried in hundreds of other communities throughout the United States. Already the representatives of the school systems of a number of large cities have the Springfield Plan under study for adoption in their own school systems. Pittsburgh, Pennsylvania, put the plan into action in January, 1944.

Each community will, of course, adapt the plan to meet its own peculiar conditions. Every community which has undertaken to carry out the plan will willingly assist other communities to launch it successfully in their own cities.

There can be little doubt that the Springfield Plan is the most promising practical scheme thus far developed for the combating of "race" prejudice and the education of Americans for a living democracy. Neither law nor regulation can eliminate "racial" or religious discrimination. Such prejudices must be prevented from developing. To eradicate the infection, we must begin in the nurseries, on the playgrounds, and in the schools. This Springfield has done. Its example must be widely imitated, not alone in the United States, but throughout the world wherever people of different physical types or religious faiths meet. In this way man's most dangerous myth, the fallacy of "race," can be overcome and relegated to the refuse heap of man's past follies.

Appendix B

AN EDUCATIONAL EXHIBIT DEALING WITH THE RACES OF MANKIND

As a practical illustration of the manner in which the public may be educated towards a better understanding of ethnic relations, may be cited the pioneering example of the Cranbrook Institute of Science, Bloomfield Hills, Michigan.

Under the supervision of its Director, Dr. Robert T. Hatt, the Cranbrook Institute of Science has prepared an exhibit giving visual presentation of the significant findings concerning ethnic facts. The exhibit deals broadly with the Negroid, White, and Mongoloid groups and their cultures. By dispelling myths and correcting fallacies the purpose of the exhibit is to create better understanding among men.

A photo-mural replica has been prepared of twenty-two of the exhibits suitable for display in museums, libraries, high schools, intermediate schools, churches, clubs, factories, and in similar places. In this form the exhibit consists of 34 panels, 48 inches high, varying from 16 to 66 inches wide, ready for immediate hanging or nailing.

The list of exhibits is as follows: (1) All Mankind Is One Family; (2) Our World Shrinks; (3) What Is Race? (4) Early Concepts of Race; (5) Physical Characters of Human Races; (6) Why Are There Different Races? (7) No Race Is Mentally Superior; (8) No Race Is Most Primitive; (9) Nationalities Are Not Races; (10) Culture Is Not Inborn; (11) Art Forms Define Cultures, yet Transcend Racial Bounds; (12) All Races Enrich Architecture; (13) Poetry Is Universal; (14) The Foods we Cultivate Are a Gift from All Peoples; (15) Our Inventions Have Come from Many Races; (16) Love of War Is Taught; (17) Negroes as an Integral Part of Our Culture; (18) Composition of the American Negro; (19) The Jews Are Not a Race; (20) Who Are the Aryans? (21) Blood Groups; (22) Let Us Live at Peace.

This excellent exhibit though intended for display to persons of high school age and over, has been successfully utilized down to the third grade level.

Exhibits of this kind should form a permanent part of the educa-

tional equipment of every school and museum in the land. They should be utilized not only as the basis for special courses in the school curriculum, but should be brought into the teaching of such subjects as literature, geography, and history.

Appendix C

STATE LEGISLATION AGAINST MIXED MARRIAGES IN THE UNITED STATES

AT THE PRESENT TIME some thirty states in the Union legally forbid "interracial marriage." In almost all these states miscegenation is a felony; in many, a crime. In the following table, based upon the data supplied in Vernier's *American Family Laws,* Vol. I, Section 44, 1931, and the 1938 *Supplement,* the statutes and other relevant data on the books of these states are given in alphabetic order. Vernier's remarks upon the data listed in this table provide a useful analysis. He writes:

"The state statutes prohibiting marriage because of race differences more nearly follow discernible geographic lines than any other type of marriage regulation. This fact is not surprising. The chief basis of such legislation is doubtless the social problem raised by the presence of minority racial groups, and by the existence of a varying degree of race prejudice. In states where the racial minority is large, the social problem and the prejudice are apt to be of proportionate importance. Other factors, such as the social and economic history and development of a state, also exert a definite influence in creating racial prejudice and discrimination, one logical result of which is legislation prohibiting miscegenation.

"A glance at the present statutory situation will reveal rather definite geographic lines of legislation. Of the thirty states which prohibit interracial marriages, sixteen may be designated as Southern or 'border' states, where the negro problem is, generally speaking, most serious, owing to the presence of negroes in large numbers. Only one New England or North Atlantic state, Delaware, has such legislation and, with the exception of Indiana, all the other states prohibiting such marriages are west of the Mississippi. Their statutes are not explained by the presence of any considerable number of negroes or of any social or economic problems resulting therefrom. But racial prejudice, social or ethnological considerations, or the dogma of white superiority, have resulted in the prohibition of inter-racial marriages.

"The states west of the Mississippi, and especially those on the Pacific slope, are almost the sole authors of legislation prohibiting the intermarriage of white persons with those of the Mongolian

race. The only states east of the Mississippi, having such legislation are Georgia, Mississippi and Virginia. In the case of the Far Western states in particular, the legislation is motivated by the presence of Mongolians in sufficiently large number to interfere seriously with the social and economic structure, as well as by a seemingly inherent prejudice against, and a vigorous opposition to their intermarriage with whites. In the states of the Middle West, South, and East the problem is practically non-existent and it is therefore easy to understand why intermarriage is not prohibited.

"The peculiarly geographic distribution of statutes prohibiting racial intermarriage forces one to conclude (all logical justification to the contrary, notwithstanding) that such legislation is not based primarily upon physiological, psychological, or other scientific bases, but is for the most part the product of local prejudice and of local effort to protect the social and economic standards of the white race." [1]

That such laws contravene the provisions of Article 1, Section 10, of the Constitution [2] and the provisions of the Fourteenth Amendment [3] is a fact which has not prevented the state courts from upholding those laws. The Supreme Court has never handed down a decision relating to them.[4]

[1] Vernier, *American Family Laws*, Vol. I, Section 44, pp. 204–9; 1938 *Supplement*, pp. 24–25.

[2] "No State shall . . pass any Law impairing the obligation of Contracts."

[3] "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."

[4] For a discussion of this subject see Wittenberg, "Miscegenation," in *Encyclopaedia of the Social Sciences*, V, 531–34.

PROHIBITED MARRIAGES

State and Citation	*Ethnic Groups Prohibited from Marrying Whites*	*Status of such Marriages*
ALABAMA Const., sec. 102; C. 1923, secs. 5001–2	"Negro or descendant of a negro to the third generation inclusive, though one ancestor of each generation was a white person"	Each party guilty of a felony (Const.)
ARIZONA R.C. 1928, sec. 2166; amd. Sess. L. 1931, Ch. 17, p. 27	"Negroes, Mongolians, Indians, Hindus, or members of the Malay race"	"Null and void"
ARKANSAS	"Negroes and Mulattoes"	"Illegal and void"
CALIFORNIA Ragland, C.C. 1929, secs. 60, 69; C.C. 1937; Lake, sec. 60	"Negroes, Mongolians, Mulattoes, or members of the Malay race"	"Illegal and void"
COLORADO Comp. L. 1921; G.S., sec. 5548	"Negroes or Mulattoes"	"Absolutely void"
DELAWARE R.C. L. 1915, sec. 2992; amd. by Sess. L. 1921, p. 578	"Negro or Mulatto."	"Void"
FLORIDA Const., art. 16, sec. 24; R.G.S. 1920, secs. 3938–41, 3944, 5419–23	"Any negro" (person having one-eighth or more of negro blood)	"Utterly null and void"

State and Citation	*Ethnic Groups Prohibited from Marrying Whites*	*Status of such Marriages*
GEORGIA C. 1926, C.C., sec. 2941; Supp. 1930, secs. 2177–2177 (20)	"Persons of African descent"; "All negroes, mulattoes, mestizos, and their descendants, having any ascertainable trace of either negro or African, West Indian or Asiatic Indian, blood in their veins"; Mongolians [1]	"Null and void"; "utterly void"
IDAHO Comp. St. 1919, sec. 4596, amd. by Sess. L. 1921, p. 291	"Mongolians, negroes, or Mulattoes"	"Illegal and void"
INDIANA Burns, Ann. St. 1926, secs. 2880, 9862, 9863	"Persons having one-eighth or more of negro blood"	"Absolutely void without any legal proceedings"
KENTUCKY Carroll, St. 1922, secs. 2097, 2144	"Negro or Mulatto"	"Prohibited and declared void"
LOUISIANA C.C., secs. 94–95; 1926 Supp. to Marr, Ann. R.S., pp. 396, 1102	"Persons of color"; intermarriage of Indians and blacks prohibited	Have "no effect" and are "null and void"
MARYLAND Bagby, Ann. C. 1924, art. 27, secs.	"Negro, or person of Negro descent to the third generation in-	"Void and a felony"

[1] In 1927 C. 1926, Supp. 1930, secs., 2177–2177 (20) Georgia enacted an elaborate statute for the regulation of miscegenetic marriages, the registration of persons of color, issuance of licences to them, etc. This statute forbids the marriage of a white person to anyone but a white person, and defines a "white person" as including "only persons of the white or Caucasian race who have no ascertainable trace of either negro, African, West Indian, Asiatic Indian, Mongolian, Japanese, or Chinese blood in their veins."

State and Citation	*Ethnic Groups Prohibited from Marrying Whites*	*Status of such Marriages*
358, 365; amd. L. 1935, ch. 60, p. 101	clusive, or a member of the Malay race"	
MISSISSIPPI Const., sec. 263; C. 1930, secs, 1103, 2361	"Negro or mulatto or Mongolian," or person having one-eighth or more of negro or Mongolian blood	"Unlawful and void"
MISSOURI R.S. 1929, secs. 2974, 4263	"Persons having one-eighth part or more negro blood"; "Mongolian"	"Prohibited and declared absolutely void"
MONTANA R.C. 1921, secs. 5700–5702	"Negro or a person of negro blood or in part negro"; "Chinese person"; "Japanese person"	"Utterly null and void"
NEBRASKA Comp. St. 1922, sec. 1491	"Person having one-eighth or more negro, Japanese or Chinese blood"	"Void"
NEVADA Comp. L. 1929, secs. 10197–98	"Any person of the Ethiopian or black race, Malay or brown race, or Mongolian or yellow race"	"Unlawful and a gross misdemeanour"
NORTH CAROLINA Const., art. XIV. sec. 8; Consol. St. 1919, secs. 2495, 4340	"Negro or Indian"; "or person of negro or Indian descent to the third generation inclusive"	"Void"
NORTH DAKOTA Comp. L. 1913, secs. 9582–83, 9586	"Negro" (persons having one-eighth or more of Negro blood)	"Utterly null and void"

State and Citation	*Ethnic Groups Prohibited from Marrying Whites*	*Status of such Marriages*
OKLAHOMA Comp. St. 1921, secs. 7499–7500	"Any person of African descent"	"Unlawful and prohibited"
OREGON C. 1930, secs. 6 (902), 14 (840), 14 (841), 33 (102)	"Any negro, Chinese, or any person having one-fourth or more negro, Chinese, or Kanaka blood, or more than one-half Indian blood"	"Absolutely null and void"
SOUTH CAROLINA Const. Art. III, sec. 33; C. 1922, Dr. L., sec. 378; C.C., sec. 5536	"An Indian, or negro," or any Mulatto, mestizo, or half-breed	"Utterly null and void and of no effect"
SOUTH DAKOTA Comp. L. 1929, secs. 128–30	"Any person belonging to the African, Corean, Malayan, or Mongolian race"	"Declared to be null and void from the beginning"
TENNESSEE Const., art XI, sec. 14; Thompson, Shannon's C. 1917, secs. 4186–87	"Africans or the descendants of Africans" to the third generation inclusive"	"Null and void"
TEXAS Baldwin, Complete St. 1925, C.C., sec. 4607; P.C., secs. 492–94	"Negro or Mongolian"	"Null and void"
UTAH Comp. L. 1927, sec. 2967	"Negro or Mongolian"	"Prohibited and declared void"
VIRGINIA C. 1930, secs. 4540, 4546, 5087, 5099*a*	"Colored persons"; having other than Caucasian blood in more than the sixteenth degree	"Absolutely void without any decree of divorce or other legal process"

State and Citation	*Ethnic Groups Prohibited from Marrying Whites*	*Status of such Marriages*
WEST VIRGINIA Barnes, Ann. C. 1923, ch. 64, sec. 1; ch. 149, sec. 8	"Negro"	"Void from the time they are so declared by a decree of divorce or nullity"
WYOMING Comp. St. 1920, secs. 4972–73	"Negroes, mulattoes, Mongolians, or Malays"	"Illegal and void"

Appendix D

A FILM STRIP ON RACE

A VALUABLE AID in teaching and in leading discussion groups, suitable for audiences of almost every kind, is a 35 mm. film strip entitled "We Are All Brothers; What Do You Know about Race?" This film strip is based on the pamphlet *The Races of Mankind* by Dr. Ruth Benedict and Dr. Gene Weltfish and is obtainable from New York University Film Library, Washington Square South, New York 12, N.Y., for $1.15, postpaid.

The film strip consists of 60 frames which can be shown on any 35 mm. single frame silent film strip projector. Showing the film usually requires about thirty minutes. This includes an excellent commentary, which is supplied without additional charge together with directions for the use of the film.

Produced by New Tools for Learning (New York), in coöperation with the Public Affairs Committee, Inc., and New York University Film Library, "We Are All Brothers" contains neither new nor startling material, but builds on the generally known common things. Its aim is to give new perspective where powers of observation have been blunted by prejudice and ignorance, and it is designed to stimulate discussion and bring out questions.

This film strip, which it is to be hoped is but the forerunner of many others, is already being widely used in schools and discussion groups, with considerable success.

There is great need for full-length films dealing with the many and varied aspects of "race" along the lines of Pare Lorentz's "The River" and "The Plough That Broke the Plains."

A somewhat longer film strip, "Forward All Together," written and produced by William and Dorothea Cary, with accompanying speech notes, is obtainable from The Council against Intolerance in America, 17 East 42d Street, New York 17, N.Y., for $2.50, postpaid.

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